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ABSTRACT

The report reviews current research findings related to the three entry points (early, middle, late) for French immersion programs in Ottawa (Ontario) elementary and secondary schools. It consists of: an executive summary and brief overview; an annotated bibliography covering authoritative immersion research reviews and reports published since 1987; a list of 82 references either cited or consulted for the report; and appended data tables showing French enrollment trends for the Carleton (1978-94) and Ottawa (1970-96) Boards of Education. The annotated bibliography is divided into five sections: (1) research overviews comparing three French immersion programs (9 citations); (2) empirical studies comparing three French immersion programs (24 citations); (3) empirical studies of alternative intensive French second language programs (3 citations); (4) other documents, including provisional policy statements and internal school board reports (6 citations); and (5) recent bibliographies of immersion and bilingual education research (5 citations). (MSE)

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COMPARATIVE OUTCOMES AND IMPACTS OF EARLY, MIDDLE AND LATE ENTRY FRENCH IMMERSION OPTIONS: REVIEW OF RECENT RESEARCH AND ANNOTATED BIBLIOGRAPHY

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This Report is in its original format and is subject to amendment as a result of Committee/Board debate.

OTTAWA BOARD OF EDUCATION

Report No. 96-190 from Administration

To Education Committee

Ottawa, Monday
November 4, 1996

Re: 1996-97 Program Reviews
Three Entry Points for French Immersion

PURPOSE:

The purpose of this report is to present a review of current research findings related to the three entry points for French Immersion Programs.

BACKGROUND:

One of the recommendations of "A Proposal for Renewal" was a "Short-Term Review" of the three entry points for French Immersion. Accordingly, an external researcher was contracted to consult with Board staff regarding guidelines for the work and to review current research findings that will assist in making decisions regarding continuation of or changes to the current programs for French Immersion, namely, Early French Immersion (EFI), Middle French Immersion (MFI), and Late French Immersion (LFI).

Attached is the Report by Wesche, Toews-Janzen and MacFarlane, (November, 1996) *Comparative Outcomes and Impacts of Early, Middle and Late Entry French Immersion Options: Review of Recent Research and Annotated Bibliography* .

RECOMMENDATION:

It is recommended that this Report be received for the information of trustees.

Marianna McVey, Manager
Central Services

Lorne Rachlis
Superintendent of Education
on behalf of Senior Administration

ACKNOWLEDGEMENTS

We acknowledge and appreciate the contribution of Dr. Marjorie Wesche, Professor at the Second Language Institute and the Faculty of Education in collaboration with Alina MacFarlane, Doctoral Student at the Faculty of Education and Marlene Toews Janzen, ESL Teacher at the Second Language Institute at the University of Ottawa in conducting this literature review. The purpose of this literature review is to provide background information for Ottawa Board of Education decision-makers in their review of the comparative outcomes and impacts of Early, Middle and Late French Immersion entry points and programs.

Dr. Marianna McVey
Manager - Central Services

Dr. Lorne Rachlis
Superintendent of Education

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B. Ottawa Board of Education FI Enrolment Trends: 1970-1996.

I. EXECUTIVE SUMMARY: MAJOR COMPARATIVE OUTCOMES AND IMPACTS OF EARLY, MIDDLE AND LATE ENTRYFRENCH IMMERSION OPTIONS

1. Background: French Immersion (FI) Rationale and Features

1.1 French Immersion in Canada

Early French Immersion (EFI) was initiated near Montreal in the mid 1960's in response to the widespread failure of school programs to develop high level functional skills in French. EFI provided three conditions known to facilitate second language (L2) learning:

1) an early start, during children's "optimal age" for language learning,
2) intensive exposure to the language over an extended period,
3) use of the language for (non-trivial) communication

Research has since confirmed the importance of all three conditions, as well as the influence of other factors (e.g. learner ability) on success in language learning. Able, motivated older learners can reach high proficiency levels with intensive, communicative L2 exposure over time. However, compelling research evidence indicates that the longer before puberty L2 learning begins, the more native-like L2 proficiency can be achieved, and the less L2 results will reflect ability differences **(#27)***. Comparative research on FI options supports the importance of all three factors **(see 3.1)**.

Across Canada, FI and bilingual secondary programs have multiplied and enrolments have grown continually since the early 1970's. Currently, some 313,000 students are in such programs, 155,000 of them in Ontario (Commissioner of Official Languages, 1996). EFI is the most widespread FI option and attracts substantially higher enrolments wherever several options are offered (#3). Three of Ottawa's English language school boards have offered some form of EFI since the early 1970's.

1.2 Ottawa Board of Education (OBE) FI Options

The OBE offers three FI options which differ in entry grade, proportion of time in English and French, and total cumulative exposure to French over time. A bilingual secondary follow-up program leads to a Bilingual Certificate. All OBE FI programs have the same language, academic and social development objectives as the regular English program, and in addition aim to develop learners' French proficiency in all skills to an advanced level, a level adequate for effective, grade-appropriate use in the regular school curriculum. All FI options include a strong English language arts component and use English as a major instructional language. While enrolment in FI is voluntary, all three program options are conceived as egalitarian, i.e. as pedagogically accessible to all students in the regular program.

**Numbers refer to research documents summarized in the Annotated Bibliography.*

In the OBE, EFI begins in kindergarten (JK or SK), Middle Immersion (MFI) in grade 4 and Late Immersion (LFI) in grade 7 (until 1992 in grade 6). All three options begin with a "monolingual" phase in which all or most instruction is delivered in French, followed by a "bilingual" phase in which English language arts is introduced and English instructional time is increased. The percentage of instruction in French in each option is:

EFI: 100%, JK/SK-grade 1
80%, grades 2-5
50%, grades 6-8.

MFI 80%, grades 4-6
50%, grades 7-8

LFI 80%, grades 7-8 (formerly 100% in grade 6; 50% grades 7-8)

In the OBE, as in boards offering similar options, EFI has continued to attract a far greater proportion of students than either LFI (introduced in 1973) or MFI (introduced in 1985); however LFI and MFI have both attracted relatively stable clienteles, and are effective alternatives for students who prefer or require a later start **(see 4.1)**.

2. Research Review Comparing FI Program Options

This **Review** and the **Annotated Bibliography** on which it is based present recent research findings on comparative outcomes and impacts of the three FI options and several alternative intensive French second language (FLS) programs. The **Review** first synthesises *learning outcomes*, then *impacts on educational systems*, of the programs.

The **Annotated Bibliography** presents summaries of findings on this topic from 9 FI research overviews published from 1987-1995, followed by summaries of 33 recent research and school board documents which present relevant empirical data. It also describes 5 recent FI bibliographies and includes a reference list of all works summarized or cited.

3. Learning Outcomes: EFI, MFI, LFI and Alternative Programs

3.1 French Language Outcomes

All FI programs consistently lead to far stronger functional French proficiency in all skills than do Core or extended FSL programs. In group comparisons of French language outcomes through grade 8 or 9 for the three FI options, EFI students consistently out-perform MFI and LFI students overall **(#17, #18, #19, #21, #22, #23)**, and MFI students out-perform LFI students **(#17)**. The younger starting age and greater total school exposure time to French of EFI vs. MFI vs. LFI are cited as factors **(#7, #8, #9, #23)**. The EFI advantage is particularly found on tests requiring more message-focused, on-line language use (e.g. oral interviews), while MFI and LFI students may reach the level of EFI students by grade 8 on tests focusing on knowledge of formal language features **(#17)**. Outcomes appear to be less consistent for later starters **(#23)**. Differences found in French performance between that portion of former EFI and LFI students completing bilingual high school (often in blended programs) tend to

disappear or to be confined to aspects of oral language use **#22, #33**, showing that academically able later starters can progress rapidly.

Student self-assessment of ability to conduct real life activities in French tend to favour EFI over LFI students throughout schooling (**#5, #22, #33**). Similar findings are reported for EFI vs. MFI students at grade 8 (**#5**), although in some cases MFI students may catch up (**#8**). Overall, of students from different programs who achieve equal proficiency, students with longer exposure to French tend to report greater self-confidence and likelihood of using French (**#4**).

3.2 Alternative Intensive FLS Programs: French Language Outcomes

Three alternative intensive programs for Core French have recently been tried in Ottawa area boards: *Compact French* (**#34**), the *Bain linguistique* (**#36**) and *Partial (50/50) EFI* (**#35**)). Two *Compact French* models were compared with *Core French*. One presented the grade 7 Core French curriculum in a 10-week, 1/2 day program; the other used a 5-month 80-minute/day program. The *Bain linguistique* offered a full-year half-day augmented French program (450 instead of 120 hours) in grade 5/6. In each case, the more intensive formats led to enhanced French language outcomes. However, all were relatively brief interventions limited to Core French objectives, and outcomes were far short of those of immersion. *Partial (50/50) EFI*, intended as a universal program, appears to work well for most students, leading to French language results between those of 75 minute/day extended programs and EFI (**#35**). However, some 20% of elementary students (including 8% ESL students) are accommodated in non-FI programs.

3.2 English Language Outcomes

Extensive research on English language development in EFI has shown that 100% instruction in French through grade 2 produces no long-term negative effect on English oral or literacy skills of anglophone students who remain in FI and are typical of the population, when compared with similar English program students (**#1**). English language shortcomings of schoolchildren and graduates should thus not be attributed to EFI. A temporary lag in EFI students' standardized test performance on English reading and other skills is normally overcome within a year after English language arts is introduced. Research including a longitudinal K to grade 6 study (**#20**) has shown some enhancement of certain English language (e.g. grammatical usage) and study skills of EFI students compared with matched English program students (**#30**). No such effects have been found for other FI options (**#5**). A comparison of vocabulary richness and other advanced English abilities of former EFI students attending university compared with former regular program students showed no adverse effects on EFI students' English (**#26**). Rather, the EFI students were more adept at using figurative language and metaphors. While these findings are encouraging for most students, EFI may not be appropriate for those, including some ESL learners, whose English skills are not well established by primary school entry (**#35**).

3.3 Academic Achievement

Research over many years on EFI programs has indicated no negative effects for EFI students tested in mathematics, science and social studies (in English) (**#3, #4, #7, #8**). Studies comparing EFI and LFI mathematics outcomes at grades 4 and 6 found similar results (**#28, #29**), and one study found similar mathematics outcomes for EFI, MFI and LFI at grades 3, 5 and 7 (**#30**). One study reports lower grade 6 scores of FI students on a standardized mathematics test involving written problems, but not on a skills test, in French (**#25**). An initial lag in academic achievement has sometimes been found for LFI students with limited previous French instruction (**#8, #12, #18**). Secondary students, particularly those in LFI, express concern that their marks may be lower in courses in French (**#7,#12**). No EFI/LFI program differences are reported for performance on standardized tests of academic subjects at the end of secondary school (**#8**).

3.4 Language Attitudes

Attitudes of students and parents toward FI programs tend to be quite positive (**#3, #31**). In a study of former EFI and LFI students six years after high school graduation, 95% said they would send their own children to FI programs, almost all of them indicating a preference for EFI (**#24**). The studies of *Compact French* (**#34**) and the *Bain inguistique* (**#36**) revealed generally positive student attitudes toward these programs vis-a-vis Core French, particularly the full-year *Bain linguistique*. Likewise, parents showed very strong support for the K-8 *Partial* (50/50) EFI vis-a-vis a proposed 50/50 MFI, some citing the wish for even more French instruction (**#35**).

Some studies suggest that FI, particularly EFI, helps develop positive attitudes toward francophone culture, reduces perceived social distance and encourages spontaneous contact with francophones (**#11, #24**). Such attitudes are also related to those of parents (**#7**).

4. Comparative Impacts of EFI, MFI and LFI on Educational Systems

4.1 Population Served

In the Ottawa area, EFI attracts by far the largest clientele, and is sometimes called the "most democratic" FI option (**#3**, p.13) as it attracts a wider cross-section of the population in terms of social background and academic ability than do MFI and LFI (**#4, #18, #25, #28**). While initially FI students were mostly drawn from middle class backgrounds and tended to have average or above average intelligence, EFI in particular now serves students with a wide range of abilities, even though the weakest students or those with language disabilities tend to be underrepresented (**#6, #11**). Research has shown that below-average students tend to do as well in EFI as they do in regular English programs if they receive the same support services, and unlike in Core French and later-entry immersion, do as well as other students in the French listening comprehension and oral communication emphasized in the primary years (**#4**).

Longitudinal FI and English program enrolment data for the Carleton Board of Education (1978 - 1994) (**#37** and **Appendix A**) and the OBE (1970 - 1996) (**#41** and **Appendix B**) reflect the strong preference for EFI since its inception in 1970. The addition of LFI a few years later in both boards and MFI in 1985 in the OBE did not substantially reduce EFI enrolment, although these options have continued to attract their own successful clientele. In interpreting the enrolment statistics below, it is important to note that CBE FI statistics are reported on the basis of eligible students (i.e. those choosing between regular English and FI programs, not in special education or ESD). OBE statistics are usually reported on the basis of total student population. See table below for comparative percentages. EFI enrolment increased dramatically from 1974 through the late 1980's, peaking at 57% of eligible CBE SK entries and over 45% of total OBE SK entries in 1987. There has since been gradual leveling off to approximately 50% of CBE SK entries (1994) and 35% of OBE SK entries (1996). LFI/MFI enrolments also peaked in 1987 in both boards (CBE 22.5 %, OBE 11% (LFI) and 7% (MFI)). In the CBE, LFI attracted 15.5% of grade 7 entries in 1994. Current (1996) FI entry enrolments in the OBE (as a percentage of total or eligible enrolment at the given level) are listed below:

1996 OBE FI ENROLMENTS

Level	*# of FI students*	*% of total population*	*% of eligible population*
EFI: Senior Kindergarten	740	35%	53%
Total SK-8 EFI enrolment	4,828	28%	37%
MFI: Grade 4 enrolment	116	6%	8.5%
Total 4-8 MFI enrolment	372		5.7%
LFI: Grade 7 enrolment	109	6%	9.1%
Total 7-8 LFI enrolment	229		9.5%

The OBE eligible population differs somewhat from that in the CBE in its higher proportion of transfer and ESL students (see Appendix B).

4.2 Attrition/Retention

The limited research available which compares attrition from different FI options deals only with attrition from secondary school bilingual programs, which is higher for former LFI students than for EFI students (**#12**).

4.3 Pedagogy

In the past decade the importance of appropriate pedagogy for effectively teaching language (L1 or L2) and subject matter together has been recognized (**#4, #8**). A study comparing French language arts instruction in EFI, MFI and LFI in grades 6 and 8 revealed differences in pedagogical practice related to EFI learners' advantages in communicative French use (**#16, #17**). EFI classes revealed greater use of message-oriented, "experiential" language use than

LFI classes, which tended to focus more on the 'analytical' study of formal language features. MFI instruction included both features. The conclusion was that "an early start and extensive exposure" to French influence the teaching approach and communicative proficiency of learners (**#16**).

4.4 Considerations in Possible Changes to FI Entry Points

Research which has considered the advantages of a single vs. multiple FI options underscores the different student clienteles each serves (**#11**), the impossibility of meeting all learner needs with one program (**#35**), and the sustained demand for EFI balanced with the desirability of offering a later entry point for those who require or prefer it in a diverse, highly mobile student population (**#31, #40**).

Four studies of FLS delivery systems by school boards in Ontario and Ministry of Education initiatives in New Brunswick have considered the impact of changes to immersion entry points:

(**OBE**) In 1995 the OBE's three FI options were analysed in a trial budget review (**#40**), considering the potential impacts of three actions for each: 1) status quo, 2) discontinuation or rationalization, and 3) program combination. All options were found to be of high quality, in demand, and cost-effective (**also see** 4.5).

(**CBE**) A 1994 survey looking at potential savings from a move to one FI option concluded that no savings and perhaps additional costs would result (**#13**). In a 1995 interview-survey, CBE school trustees identified FI concerns: 1) declining LFI enrolment, 2) blending of LFI & EFI students in secondary school, 3) insufficient secondary enrolment and 4) FI impacts on the school system (**#14**). Solutions receiving significant support were increasing dual track schools, consolidation/elimination of LFI, elimination of EFI/LFI blending, and consolidation of the secondary program.

(**ORCSSB**) The Ottawa Roman Catholic Separate School Board carried out board-wide consultations on a motion to replace universal, Partial (50/50) EFI (**#35**) with universal, partial (50/50) MFI (**#42**). The proposal was conceived as a way to integrate students who currently are provided with alternate programs (**3.2**). Parents overwhelmingly favoured the existing Partial EFI program, while administrators and teachers were generally positive but more open to changes, particularly provision of alternate programming.

(**MENB**) The Ministry of Education of New Brunswick, following a provincial-wide review of FSL delivery (**#31**), set a new (1995) policy to establish greater provincial uniformity and higher standards. School boards are directed to provide Core French in all schools. In addition, every school board with sufficient demand is to provide either EFI or "Intermediate FI" beginning in grade 6, plus secondary follow-up programs. Existing LFI programs will gradually be phased out. Guidelines are provided for periodic assessment of French skills, including at the end of secondary school (**#38**).

4.5 Financial Issues

Several recent studies by the CBE and the OBE have compared FI options in terms of their cost per student, potential savings with a single entry point, the impact of grant financing, and the potential effect of start-up/changeover costs (**#13, #39, #40**). The CBE study found that current EFI programs are equivalent to the regular English program in cost per student and that LFI costs are only slightly higher due to smaller class sizes. These calculations do not take into account revenues generated by provincial FLS grants. Elimination of EFI or of all FI would transfer the same costs to the English program. Such changes or a move to MFI as a single entry point would entail considerable hard costs for program start-up, commercial materials and teacher displacement. Any transportation savings would depend upon whether students returned to home schools. FI programs generate revenues or credits which are used system-wide (not only for FI). These would presumably be reduced if FLS programs were reduced (**#39**). The OBE study reached very similar conclusions.

Brief Overview of Executive Summary: Major Research Findings Comparing French Immersion Options

See Executive Summary and Annotated Bibliography for details and references.

Learning Outcomes

French language: Program comparisons have shown that French immersion programs lead to far stronger French language skills than Core programs. In group comparisons of early (EFI), middle (MFI) and late (LFI) immersion through grade 8/9, EFI students outperform MFI students, and MFI students outperform LFI students. EFI students have a particular advantage in message-focused, on-line language use. Some MFI and LFI students catch up to EFI by grade 8 on reading and written grammar. Improved French language outcomes of alternative intensive French approaches (*Compact French, Bain linguistique*) improve Core but fall far short of FI results.

English language: French only instruction through grade 2 has no effect on English oral development. A temporary lag in EFI students' English literacy skills generally disappears within a year after English language arts instruction is begun. Studies have found certain long-term advantages for EFI students in English language and study skills which are not evident for students in MFI, LFI or Core programs.

Academic achievement: No negative effects are found for elementary school FI students in mathematics, science and social studies when tested in English. In some cases students may have lower scores when tested in French. LFI students with limited previous French instruction may experience a temporary initial lag in academic achievement. No EFI/LFI academic differences are found at grade 12. MFI grade 12 outcomes have not been studied.

Language attitudes: FI students and graduates have very positive attitudes toward FI programs, especially EFI. FI, again mainly EFI, has been found to support positive student attitudes toward francophone culture, reduce social distance and promote spontaneous contact with francophones.

Impact of Immersion Options on Education Systems

Student clientele: Of the three FI options, EFI attracts a far larger, more socially and academically diverse student clientele than MFI or LFI. Although at-risk students are somewhat underrepresented, many below-average students are successful in this program, and may perform relatively better than in Core programs, especially during the first years emphasizing oral communication. Later entry programs, particularly LFI, attract an academically stronger clientele. OBE EFI expanded continually from 1970-87, reaching 45% of SK enrolments, with subsequent levelling off to 35% (1996). Addition of LFI in 1973 and MFI in 1985 did not affect EFI enrolment; rather these options have continued to attract different, also successful clienteles. Currently each attracts about 6% of entry-year enrolments (grade 4 and 7).

Considerations in changing FI entry points: Research on advantages of one vs. multiple FI options underscores the different clienteles served by each, the impossibility of serving all learner needs with one program, the sustained demand for EFI, and the need, in a diverse, highly mobile population, to offer a later entry point.

Financial Issues: Recent studies by the CBE and the OBE have found that current FI programs are equivalent to the regular English program in cost per student, without taking into account grant credits/revenues generated by FI for the entire system which would be reduced with reductions to FI. Elimination of EFI or all FI would transfer the same costs to the English program. Such changes or a move to MFI as a single entry point would entail considerable hard costs for program start-up and teacher displacement. Transportation savings would occur only to the extent that children returned to neighbourhood schools.

II. ANNOTATED BIBLIOGRAPHY: COMPARATIVE OUTCOMES AND IMPACTS OF EARLY, MIDDLE AND LATE ENTRY FRENCH IMMERSION OPTIONS

Acknowledgements and Procedures

The **Annotated Bibliography** covers authoritative immersion research reviews and studies published since 1987 relevant to comparative outcomes for early (EFI), middle (MFI) and Late (LFI) French Immersion program options. Potential entries were identified through bibliographies on immersion research (**#43-#47**), the cumulative indices of the *Canadian Modern Language Review,* bibliographies of research reviews (**#1-#9**) and through consultation with language educators and researchers. The authors gratefully acknowledge the following sources of references and documents.

Organizations: ACCESS Ontario, Canadian Association of Immersion Teachers, Canadian Association of Second Language Teachers, Canadian Education Association, Canadian Parents for French, Canadian Modern Language Review, Commissioner of Official Languages, Ontario Modern Language Teachers' Association.

School boards: Carleton, Carleton Separate, Lakeshore (Montreal), Ottawa Separate, Peel, Thirteen Lower Mainland (BC), Toronto Metro. Ottawa Board of Education staff provided internal reports and other pertinent documents.

Researchers at the following universities: Concordia, New Brunswick, McGill, Memorial, Ontario Institute for Studies in Education, Ottawa, Simon Fraser, Western.

n.b. All major known sources have been covered, but due to severe time constraints some studies may have been missed. The authors regret any such oversight.

ANNOTATED BIBLIOGRAPHY

A. RESEARCH OVERVIEWS COMPARING THREE FRENCH IMMERSION (FI) PROGRAMS: 1987-1995

nb: Entries in Section A are presented in chronological order beginning with the most recent. In Sections B - E , they are listed in alphabetical order by first author. Cited works appearing elsewhere in the Annotated Bibliography are indicated by number. Full references for all entries and other cited works are listed under References.

1. Canadian Association of Immersion Teachers. (1995). *Introducing English Language Arts in Early French Immersion.* Nepean, ON: Canadian Association of Immersion Teachers and the Carleton Board of Education. 17 pp.

There is great variety in EFI program structure, especially in the introduction of English language arts. There are four basic approaches: 1) Teach formal reading in French in grade 1, and delay English language arts instruction until grades 2, 3, or 4. This approach is the most popular across Canada. 2) Teach formal English reading and informal French language arts in grade 1 with formal French reading introduced in grade 2. Manitoba has had this approach for 10 years. 3) Teach French and English reading concurrently, with the introduction of both French and English reading in grade 1, or 4) Teach reading in French first with informal language development in English oral and listening skills in grade 1.

Partly because of these differences, the question is frequently asked: When is the best time to introduce English language arts to EFI students? Some argue that English reading should be introduced in grade 1 because students will read in English more easily, transfer learning across languages, be more confident, and be able to move into an English program more easily. Others have expressed concern that the amount of time taken from French instruction will interfere with French language development, and about how much negative impact the teaching of English may have on the French immersion environment. This study presents the issues surrounding that question so that administrators, school staff and parents might have a thorough understanding of those issues.

Findings: The study found that although there has been much discussion, there have been few empirical studies on the question of when to introduce English language arts.

French language skills: There are many studies that indicate that the more hours of exposure, the better the proficiency in oral skills (Edwards, 1989, **#7**; Dicks, 1994, **#17**; Peel Board of Education, 1992, **#31**; Hart, Lapkin & Swain, 1992, **#21**; Lapkin, Hart, & Swain, 1991, **#23**). Although no study has yet identified the number of hours

that could be taken away from *EFI* French instruction before harm is done to French language proficiency, the Modern Language Centre at the Ontario Institute for Studies in Education (OISE) has data suggesting that there may be a threshhold of instructional time necessary to achieve measurable progress in French (Hart & Lapkin, in preparation). Thus the total number of hours of instruction in French must be taken into account in the decision-making process regarding the introduction of English in EFI. The authors emphasize that another important factor must also be taken into account: the creation of an immersion environment, because of its important contribution to motivating students to communicate in French. Change in the French/English balance could jeopardize this program element.

School boards across Canada have very different definitions of what constitutes an EFI program. New Brunswick's new plan (New Brunswick Ministry of Education,1994, **#38**) calls for 90% French instruction in grades 1 to 3, 80% in grades 4 and 5, and 70% in grades 6 to 8. Newfoundland's guidelines (Netten, 1990) call for 100% in Kindergarten to grade 2, 80% in grade 3 and 4, 55% in grade 5, 45% in grade 6, and 30% in grades 7 and 8. In Ontario, immersion is defined by the number of accumulated hours of French instruction to grade 8. There are variations in the percentage of French at each grade level. For example, Durham County (Durham County Board of Education, 1993) provides 100% French instruction in Kindergarten to grade 3, 70% in grade 4, and 50% in grades 5 to 8. The Ottawa Roman Catholic Separate School Board (ORCSSB, 1993, **#35**) has a universal Partial FI program of 50% French instruction for Kindergarten to grade 6. After grade 6, the FI program is optional. The OBE instructs 100% in French from Kindergarten to grade 1, 80% from grades 2 to 5 and 50% from grades 6 to 8.

English language skills: The authors emphasize that a large body of research has shown that learning to read in French first has had no long-term detrimental effects on the English reading skills of students who are typical of the population and have remained in immersion (Edwards, 1989, **#7**; Peel Board of Education, 1992, **#31**; Gaudet & Pelletier, 1993; McVey, Bonyun, Dicks, & Dionne, 1990, **#30**; Neufeld, Arnold, Flaborea, Paterson, & St. Lewis, 1992). While there is some evidence that anglophone students have a more positive attitude to reading in English and many studies have found evidence of transfer of reading skills from any one language to another, there is no data indicating whether transfer happens more quickly from English to French or vice-versa. There is still a need for empirical studies that demonstrate any advantages or disadvantages to a particular sequence of reading instruction in EFI. The available studies simply lead to the conclusion that no one approach will meet the needs of every student.

Finally, the authors recommend that school boards which make changes to their program should conduct well-designed research studies of the new program in such areas as: listening, speaking, reading and writing, in both English and French; student self-esteem; stress on teachers; enrolment changes; numbers and reasons for transfers; increase or decrease in amount of reading; satisfaction of parents; and teacher attitudes.

2. Rebuffot, J. (1993). Chapters 3 and 4 in *Le Point sur L'immersion au. Canada*. Quebec, QB: Centre Educatif et Culturel Inc: 81 -127.

In Chapter 3 of this major work, Rebuffot synthesizes the research on the effects of immersion on French language proficiency, including a comparison of outcomes for EFI and LFI. Overall, EFI students outperform those from LFI in oral and reading comprehension, as well as in oral production (speaking) skills. In their French writing, however, the two groups are very similar. In Chapter 4, he reviews research on the effects of immersion on English language development and academic achievement in French. Many years of testing and research show that French immersion has no negative effect on the development of English language skills as measured by standardized tests. There is an initial lag in English in EFI, but this disappears within the first year that English language arts are introduced. In terms of academic achievement, the results of various evaluations indicate that student learning and performance do not suffer because of French instruction in mathematics, science, and history. However, inadequate French skills can temporarily affect the academic achievement of students entering LFI.

3. Canadian Education Association. (1992). *French Immersion Today*. Toronto, ON: Canadian Education Association. 31 pp.

In 1983, the CEA conducted a survey on French immersion to examine the issues and effects of the program on school boards. In 1992, they conducted another survey that looked especially at the question of enrolment in FI programs. Of 184 school boards contacted across Canada, 104, or 57%, responded.

Findings: General enrolment statistics: For a majority of school boards, enrolments in FI have stabilized after years of dramatic increases. While a few school boards in Ontario, Quebec, and New Brunswick have shown more dramatic growth, most increases or decreases in enrolment were within 1 to 3%. However, in a majority of Canadian school boards, FI continues to be chosen by a significant, stable segment of the student population. 77% of the school boards surveyed had more FI students in 1991-92 than in 1988, 14% had lower enrolments, and about 9% had about the same (no more or less than a 10-student difference).

Different entry points: By far the most popular entry point for immersion is *EFI* followed by *LFI* and then *MFI*. Senior kindergarten is the most popular entry point in *EFI* with grade 1 the second most favoured. Reasons given for the popularity of *EFI* were: research indicating that higher success rates in speaking and understanding French are linked to earlier exposure; a belief that *EFI* provides the students with a better opportunity to develop functional bilingualism than any other FSL programs; *EFI* allows students to comfortably assimilate the language and acquire a competent level of French at an early age; it is easier for young children to learn a second language because they are more relaxed and have fewer inhibitions in imitating a French role model, thus they take more risks in expressing themselves in French, and get more

practice. A number of respondents felt that *EFI* was the most democratic and least selective entry level because accessibility is granted to a broader range of students. Also, bonding with peers from an early age creates a greater commitment to the program. When the Etobicoke School Board proposed replacing *EFI* with *MFI* in 1991, parents joined forces to save the program.

MFI is preferred by those who believe that a solid grounding in English language skills is necessary before starting a second language, or for those whose mother tongue is neither French or English. On the other hand, some researchers believe that language skills are transferable and that a child with a good command of any language will do well in immersion and learn English outside the classroom. Another reason given for choosing *MFI* or *LFI* is that by age 9 or 12 a child's learning problems have been assessed. *MFI* is not offered by many boards, and has not been studied as thoroughly as *EFI*. The report points out that the introduction of *MFI* in the OBE did not affect the percentage of the student population choosing *EFI* or *LFI*.

According to the survey, *LFI* attracts students who are strongly motivated, there is a higher student retention factor, and a strong commitment from parents and children. It may also be more cost-effective for boards in that fewer French teachers and French language resources are needed, and it is easier to administer because there are fewer schools involved. However, *EFI* remains the preferred choice, so that when it is offered by a school board that already has *LFI*, enrolment in *LFI* drops off.

4. **(1991). Dubé, L., and MacFarlane, A. Middle Immersion: Is it a better option than early or late?** ***Le journal de l'immersion Journal*****, 14 (3): 21-27.**

Introduction of *MFI* in the 1980's created yet another option for French language instruction in Canada. This review of recent research on immersion education, especially those studies that compared FI options, was carried out in order to help schoolboards, educators, and parents grappling with the issue of which immersion option(s) to pursue. The authors found that all three immersion options have been successful in promoting advanced French language skills, and that student achievement in subject-matter taught in French, as well as English language development, were not negatively affected by any of the immersion options.

French language skills: In general, the research placed the *EFI* students ahead of their *MFI* and *LFI* schoolmates in listening, speaking, reading and writing, at least through grade 8. Hart, Lapkin and Swain's 1988 study in Metro Toronto (**#23**) found the *EFI* students to be stronger than their *MFI* counterparts in the areas of grammar and syntax in both speaking and writing. The OBE's 1988 study of *MFI* (**#28**), on the other hand, found that the French production skills of Grade 6 *MFI* students were comparable to those of Grade 6 *EFI* students in vocabulary, pronunciation, fluency, and use of communicative strategies. Pawley,in a 1985 study of the bilingual skills of FI students in secondary school using 4 different tests, found that *EFI* students succeeded better,

on average, than the *LFI* students. Other research has found that the listening and reading skills of *EFI* students in a school context approximate more closely those of francophone peers (Genesee, 1987,**#8**; Wesche, 1989). Differences between *EFI* and *LFI* students were considered minimal by the end of secondary school, however, and no similar comparative study has yet been carried out on the *MFI* students completing high school.

English language skills: Researchers have reported a temporary lag at the beginning of *EFI* in English reading and spelling, because of the delay in the introduction of English language arts. However, within a year after English is introduced, *EFI* children tend to perform as well as, if not better than, their peers in the English-only program. In fact, some studies have even shown the enhancement of some English language skills in *EFI* students (Harley, Hart & Lapkin,1986, **#20**). The English language performance of *MFI* and *LFI* children, not surprisingly, is similar to that of students in the English-only program. One 1988 study (Lapkin, Hart, & Swain, 1991, **#23**) found that *EFI* students outperformed *MFI* students on both the English reading and vocabulary subtests of the Canadian Test of Basic Skills (CTBS) at both the grade 5 and grade 8 level.

Academic achievement: There is some initial delay in subject-matter learning for *MFI* and *LFI* students as they struggle to develop adequate language skills to deal with new material in French. Once these skills are in place the students perform as well as their English-program peers. In the OBE evaluation of *MFI* (1988, **#28**), the mathematics scores of the grade 4 and grade 6 students were similar to those of students in *EFI* and slightly better than the scores in the regular English program . Research has also shown that the academic skills of below - average students in immersion are no worse than those of similar students in the regular English program. Participation in immersion does not differentially affect their first language development or their academic skills (Genesee 1987, **#8**; Swain,1981).

Self-confidence in using French: EFI students tend to feel more positive about their French language skills and are less anxious about using French than *LFI* students (Lapkin & Swain, 1984; Lapkin & Swain, 1989). *MFI* students may become as confident as *EFI* students about their French language skills by Grade 8 (Genesee, 1987, **#8**). It appears that although students from different programs may have achieved equal proficiency, the self-confidence and readiness to use French of the students with longer exposure to French is greater.

Attitudes: There is some evidence to suggest that the development of French language skills in immersion programs encoura_ s spontaneous contact with francophones, reduces social distance between the two groups, and helps to develop positive attitudes toward the second language and culture (Carleton Board of Education,1989, **#11**). This appears to be particularly true for *EFI* students (Swain & Lapkin, 1981).

Population served: In the earlier years of French immersion *(EFI)*, students were mostly drawn from a middle-class background, with average to above-average intelligence. Now, however, *EFI* serves a more heterogeneous group of students with a wide range of abilities and cognitive styles. Not only has research shown that the academic skills of below-average students are not damaged by participation in immersion, but their listening comprehension and oral communication skills in French are as good as those of other students in the program. This is especially true of the *EFI* option, where there is neither selection nor screening of students, and where there is a strong emphasis on oral French in the first two to three years. *MFI* and *LFI*, attract a more homogeneous group of students in terms of academic abiity, because the decision to place a child in an immersion program is often based on the parents' (and teachers') view of the child's academic ability and aptitude for such a program, as well as the child's self-selection for the program. Dubé and MacFarlane found that the *EFI* program serves a wider cross-section of the population, socially and academically, giving more children access to second language skills.

5. Lapkin, S., Swain, M., & Shapson, S. (1990). French immersion research agenda for the 90's. *The Canadian Modern Language Review* , 46 (4): 638-674.

This article is part of a larger project to develop a research agenda for immersion education in the '90's. In order to provide a context for discussion and further research, the authors summarized research relevant to the various issues raised. The first section, entitled "Product Variables", refers to some comparative studies of FI programs, or makes comparisons based on the available research.

Findings: French language skills : Generally speaking, in comparisons of the different FI groups, *EFI* students outperform *LFI* students on certain speaking measures (e.g. fluency) and in listening comprehension (e.g. Day & Shapson,1989; Harley,1987; Hart & Lapkin, 1989; Swain and Lapkin, 1986). Research at the university level (Wesche, 1989), however, found that for FI students who continue on to university, those differences largely disappear. A comparison of French language outcomes of *EFI* and *MFI* programs in Metro Toronto (Lapkin, Hart, & Swain, 1991, **#23**) found that although the strongest *MFI* classes performed at similar levels to *EFI* on several French measures (at grade 8), the performance across classes within *MFI* covered a much larger range of scores, or was less consistent than results from *EFI*. Because no follow-up studies are yet available, it is not known whether such differences continue through to the end of high school.

English language skills: Twenty years of research have shown that the English language skills of students are not negatively affected by FI. In fact, in *EFI*, some positive effects on English language skills have been documented (Harley, Hart & Lapkin, 1986, **#20** ; Swain & Lapkin,in press). Such positive effects have not been found in other, less intensive immersion program options (e.g. Edwards, McCarrey & Fu, 1980).

Confidence in using French: Researchers have also looked at students' self-assessment of their French language abilities, and their relative confidence in using French. Recent Ontario studies indicate that students' perceptions of their ability to conduct real life activities in French differ for *EFI* and *MFI* students in grade 8, and *EFI* and *LFI* students in grade 12, with *EFI* students showing significantly more confidence in both cases.

6. Edwards, H. P. (1990). French second language programs: Alternative approaches. In B. Fleming & M. Whitla (eds) *So You Want Your Child to Learn French!* (Second Revised Edition) Ottawa: Canadian Parents for French: 5-12.

This article was written in order to help parents better understand and choose from the available French immersion programs in Canada. The author outlines the differences between the programs, and some implications of those differences.

Population served: According to the author, the students in *EFI* and *MFI* programs will generally be reasonably representative of the total school population, although the weakest students or those with language disabilities tend to be underrepresented in immersion programs. Students in *LFI* programs tend to be self-selected and are a more motivated and able subgroup rather than a representrative sample of the population.

The student clientele is also affected by the popularity of FI in a particular area. Where FI is popular and widely available, FI students more closely resemble the general student population. In areas where FI is less popular, or is not offered in a neighbourhood school, the FI program is more likely to include a higher proportion of high achieving students from high socioeconomic backgrounds.

Relative advantages of an early or a later entry point: Edwards notes that most available studies favor an early entry point, and that according to the available research, neither learners' English language development nor their academic achievement suffers. He offers several reasons: young children do not yet have psychological barriers to acquisition of a second language, there are more hours of exposure to French, and the efforts of the children are "readily rewarded by parents and peers" (p.7). Research evidence shows *LFI* programs to be successful "**for those students who enrol in them**" (emphasis in the original) and *MFI* programs are also supported by positive, though more limited data. The major advantage of *EFI* may be that it has the longest number of hours of exposure to French (5000 hours, compared to 2000-5000 for *MFI*, and 2000 for *LFI*), which Edwards believes is in turn related to the high level of French attained by the students.

7. (1989). Edwards, H. P. Critical review of the literature on French immersion. Chapter 3 in Carleton Board of Education, Research and Planning (1989). *Immersion/Regular Program Study (I/RPS).* Nepean, ON: Carleton Board of Education. 64 pp.

French language skills: The available research indicates that the measured French language skills of *EFI* students tend to be better than those of *LFI* students. However, by the end of grade 8, differences between the two groups are smaller than one might expect, given the large differences in total instruction time in French in the two programs. Thus, Edwards concludes, for students who are "motivated and able" (p.3-17), *LFI* programs represent a good alternative for approximating the second language achievements of students in the *EFI* program. However, it is not known how effective *LFI* would be for students less motivated and less able than those who typically enter this program. As Edwards points out, the *EFI* and *LFI* programs achieve similar objectives "with respect to the student populations enrolled in them" (p.3-40).

According to studies that compare *MFI* and *EFI* students the French language test scores of *EFI* students tend to be better than those of *MFI* students, but not on all measures. At grade 6, *MFI* students tend to lag behind *EFI* students in such areas as listening comprehension, grammar, syntax, and pronunciation, but *MFI* students demonstrate similar French reading comprehension skills. Some researchers (e.g. Genesee, 1987, **#8**) have argued that *MFI* programs could achieve the same French language results as *EFI* if the amount of French instruction time were comparable. However, as Edwards remarks, it would be difficult for schools to achieve the 5000+ hours of French instruction time from an *MFI* or *LFI* entry point.

Partial immersion (50/50) programs have not been extensively evaluated. In one large-scale study available from 1980 (Edwards, McCarrey & Fu 1980) , the French skills of Partial Immersion students measured in grade 5 were between those of EFI students and those of students in the extended French (60-75 min. per day) program.

Follow -up studies of *EFI* and *LFI* students in the OBE and CBE who pursued partial secondary immersion programs found no significant differences in French language skills between the two groups at the end of Grade 12 (Morrison & Pawley, 1985, 1986). Both groups had achieved high, but not native-like, levels of French proficiency, easily surpassing the U of Ottawa second language requirement. Edwards suggests two alternative possibilities for these findings: First, the students who pursue immersion studies in high school may be a select subgroup, and secondly, it is possible that the *LFI* students slow down the continuing progress of the *EFI* students. The post-secondary follow-up study by Wesche, Morrison, Pawley, & Ready (1986), while also very positive about the long-term value of the *LFI* option, found that *EFI* graduates were superior to *LFI* students on some measures of French skills, including listening and speaking , but not on reading or vocabulary tests. The *EFI* students also assessed themselves as more proficient in listening and reading skills than did the *LFI* students.

Edwards warned that the results of any of these comparative studies of FI programs must be approached with caution, because 1) It is very difficult to guarantee the comparability of *EFI*, *MFI*, and *LFI* groups in any one study; 2) the total number of *MFI* studies (up to 1988) was very small; and 3) there was no available follow-up of *MFI* or *50/50 bilingual program* students to the end of high school or beyond.

English language skills and *academic achievement:* According to available studies, none of the three immersion programs have had a negative effect on English language development or academic achievement up to grade 8, at least as measured by standardized achievement tests. Secondary students have expressed concerns that they might get lower marks in subjects they are studying in French for the first time.

Data from the CBE and OBE indicate that although these students get acceptable marks, they may obtain better results when tested in English than in French (Bennett, Boss, Carlson, & Soucy,1982; Morrison & Pawley,1983). Edwards recommended further study of this question, especially in *MFI* and secondary immersion programs, because there were not yet enough studies " to warrant confident generalizations." (p. 3-20).

Attitudes toward French language and culture: Research has repeatedly found that the attitudes of immersion students are generally positive, although it is not clear whether this is a function of immersion programs or of parental attitudes. In terms of differences between the programs, one study of *MFI* attitudes by Hart et al (1988) found *EFI* students slightly more positive in Grade 5, but found no differences between the *EFI* and *MFI* students by Grade 8. Edwards recommended more studies to compare the effectiveness of the different types of immersion programs in developing positive student attitudes.

Pedagogical issues: Edwards reported that there had not yet been been any studies comparing the various immersion programs in terms of their suitability for special groups of students. Some researchers argue that early, total immersion is contra-indicated for some groups of children, although there is to date no 'hard' evidence to identify any groups of children unsuitable for the immersion approach.

Edwards also reviewed several major theories of child development, in terms of their implications for second language learning. While none was conclusive, he concludes that these theories, "when reviewed in the context of the available research and evaluation data" are "more compatible with the establishment of immersion programs in elementary school, and if feasible during the earliest grades, than they are with programs whose entry points are later on." (p.3-57).

8. Genesee, F. (1987). Chapters 3 & 4 in *Learning Through Two Languages: Studies of Immersion and Bilingual Education* . Cambridge, MA: Newbury House Publishers: 27-61.

In the third chapter of this major work, Genesee reviews research findings on two questions related to French immersion: its effects on English language development and on academic achievement in other subject areas taught in French. In most of the research, students in FI were compared with comparable English-speaking students in regular English programs (those with a similar socioeconomic status and similar academic ability), and sometimes, with comparable French-speaking students in all-French schools. Program evaluation was also generally longitudinal, that is, the performance of a group of students was evaluated over a number of years. Finally, earlier groups in a new program were compared with follow-up, or later groups, those who entered the program when it had stabilized somewhat.

Findings: French language skills: In Chapter 4, Genesee reports that comparisons between alternative forms of FI have tended to find that *EFI* students achieve second language proficiency that is superior to or at least equivalent to that of *MFI* students. They also generally achieve superior or equivalent levels of proficiency when compared to *LFI* students. In general then, early exposure and extended exposure are associated with relatively higher levels of second language skills. However, he adds that this finding needs to be qualified as other factors also influence outcomes. First, cumulative exposure alone may be less important than intensity of exposure, so less cumulative but more concentrated exposure may be as effective as more cumulative but dispersed exposure. Secondly, older students are more efficient language learners, and this can offset the advantages of more extended exposure. Third, programmatic factors (like teaching style or skill) can be important determinants of the effectiveness of a program, regardless of the age of the learners and the amount of second language exposure provided.

English language skills: Standardized testing has shown that *EFI* students may experience a temporary lag in reading, spelling, and written vocabulary during the time (grades 1-2 or 3) when all instruction is given in French. However, they catch up with students in all-English programs within one year of beginning English language arts. Students in other program options (*MFI* or *LFI*) experience no lag in English language development.

Academic achievement: Standardized testing in mathematics and science indicate that subject-matter instruction in French has no negative effects on the academic achievement of *EFI* students and of *LFI* students with substantial prior Core French instruction. *LFI* students with limited previous French exposure may experience a temporary lag in academic achievement in the first year of the program. Students from both *EFI* and *LFI* achieve as well as their English-taught peers on standardized tests in academic subjects and in English language arts at the end of secondary school.

9. Parkin, M., Morrison, F., & Watkin, G. (1987). *French Immersion Research Relevant to Decisions in Ontario.* Toronto, ON: Ontario Ministry of Education. 78 pp.

This report, commissioned by the Ontario Ministry of Education, provides a review of research on French Immersion up to the end of 1985. It includes an annotated bibliography, a synthesis of the findings under six headings, and recommendations. Some of these findings compare the various FI options.

French language skills: Although *LFI* students studied made impressive gains within a short time, overall comparisons of French language skills generally showed an advantage for the *EFI* students, at least to the end of Grade 8. In a study carried out in 1985-86 at the Grade 13 and first-year university levels (Wesche, Morrison, Pawley, & Ready, 1986) some differences continued to be found favouring *EFI* students. In an earlier study at the Grade 12 level (Morrison & Pawley,1986), however, differences were found only on individual speaking tests. Another study in Ottawa-Carleton (Pawley,1982) compared the ability of *EFI* and *LFI* Grade 10 students to write a persuasive letter. Ratings on general impressions and several other characteristics showed few differences between the groups.

The review also looked at three comparison studies between *MFI* and *EFI* students. One small study of three classes in Toronto (Lapkin & Swain 1984) found no significant difference in reading comprehension between the *MFI* and *EFI* students in grade 6, and the difference in listening comprehension was greater between the two *EFI* classes than that between the *MFI* students and those in *EFI*. A study by Cziko (1976) found little difference in French reading ability between Grade 4 *EFI* students, and those in *MFI* , who had only been in the program for one year. An Ottawa study by Parkin et al (1986), on the other hand, found that the French reading achievement of Grade 4 *MFI* students at the end of one year of immersion was significantly lower than the year-end results of a group of *EFI* students who had been in FI for four years.

The report also examined the question of retention of French language skills after students leave the immersion program. Follow-up studies were carried out in the Montreal area (Adiv, 1980). In several cases, the differences between those who had been in *EFI* and *LFI* in Grade 8 decreased as they progressed through grades 9 to 11. In an overview of the1979 Peel Study (Lapkin, Swain, Kamin, & Hanna, 1983), it was suggested that the high school program was sufficient to maintain, but not enhance the French language skills of *LFI* students. An Ottawa study of a group of Grade 10 students who had left the immersion program after Grade 8 (Morrison, Pawley, Bonyun, & Unitt, 1986) found no significant differences between the former *EFI* and *LFI* students on a test of French reading skills and language usage. However, all of them showed a significant improvement over their Grade 8 scores on the same test.

Relative advantages of an early or a later entry point: Genesee (1978) argued that there are advantages for both groups: the younger learners (*EFI*) have a longer exposure to French, with more opportunities to practice, while the older students (*LFI*) are more efficient learners. Even though *EFI* learners do appear to attain a somewhat higher level of proficiency , Genesee pointed out that both *EFI* and *LFI* students attain a fairly high level of proficiency in French, and that schools need also to investigate the best methods of instruction for the various groups of learners, in order to achieve optimal results for all of them.

A 1982 survey of 178 graduates of *LFI* and high school bilingual programs in Ottawa found that about half of them felt that Kindergarten or Grade 1 was the best time to enter FI. One quarter of them, however, felt that they preferred the later entry path they had taken. (Bonyun,1983). A later survey found that 80% of *EFI* graduates in Grade 12 and 13 felt that the early entry point (*EFI*) was preferable (Bonyun, 1985).

B. EMPIRICAL STUDIES COMPARING THREE FRENCH IMMERSION (FI) PROGRAMS (Articles, Book Chapters, Papers, Reports, and Theses).

10. Bannister, G. (1991). *A Comparison of the Attitudes of Grade VIII Early and Late French Immersion Students in Newfoundland and Labrador toward their School Program for the School Year 1989-1990.* Unpublished Master's thesis, Memorial University of Newfoundland.

This study looked at the similarities and differences in the attitudes of grade 8 EFI and *LFI* students in Newfoundland and Labrador toward their FI program. Questionnaires were given to both groups.

Findings: Most of the students in both programs felt that they could perform adequately in out-of-school activities requiring the use of French. However, the EFI students perceived their speaking skills as being more proficient than did the LFI students. Students in both groups said that they would recommend an immersion program to a younger sibling or friend, but there were differences of opinion between the two groups and within LFI as to the best time to start. These differences generally favoured *EFI*.

11. Carleton Board of Education, Research and Planning (1989). *Immersion/Regular Program Study.* Nepean, ON: Carleton Board of Education. 83 pp. and 4 large appendices.

This study was undertaken mainly to study alternatives for the delivery of French Immersion programs, including the potential impact of introducing Middle French Immersion (*MFI*) and the effect of French immersion programs on other programs.

H.P. Edwards reviewed the research literature related to immersion programs. (See Edwards, 1989, #7). Other data were gathered via a perception questionnaire to staff, a telephone survey of a small sample of JK parents, from representatives of two school boards with *MFI* programs, two CBE principals familiar with *EFI* and *LFI*, and from individual schools and central records as well as various CBE divisions.

Findings: Impact of FI on the regular English program: The rapid growth of EFI during the 1980's meant reduction of the regular English program until EFI entry peaked in 1987 at 57%. At that time, the sizes of elementary school classes were similar in the FI program and the regular English program, but there were twice as many multigrade or split classes from grades 1 to 8 in the English program, while there were many more SK classes with more than 22 students in *EFI* as compared with the regular English program.

Population served: The Perception Questionnaire showed that there was a strong perception that streaming due to academic ability occurs because of partitioning (for FI). The data showed that while *EFI* students had slightly higher scores on the grade 3 reading test, and in grade 8 regular English program scores were considerably lower than for *EFI* and *LFI* students, there were students with low achievement in both the *EFI* and *LFI* programs. Although some streaming does appear to take place at grade 7 when *LFI* begins, the students in both *EFI* and *LFI* are more heterogeneous than 10 years ago, and neither program could be described as elitist based on the available data.

Effects of possible changes to the entry point to French immersion: Six options were studied in order to estimate their impact on the students, schools, and existing programs. None of the options studied appeared to eliminate the effects of partitioning the student population for program delivery. The study concluded that by offering only *MFI* and requiring that all students attend, the effects of partitioning (e.g. on neighbourhood schools and transportation) might be minimized, but this solution would likely be very unsatisfactory for some parents, and "appears to contradict the Education Act" (p. 5-11). Also, French language proficiency outcomes are not established for *MFI*, and a loss of revenue from grants would result from this change. This option would also result in the most disruption to the system. They also emphasized the findings of Edwards' literature review (#7), which found that different FI options attract different populations, and that immersion is probably best begun at the earliest possible grade. Finally, on the basis of the small sample of JK parents surveyed, *EFI* continued to be the first choice of a large proportion of the parents, with a substantial group also interested in *MFI*. *LFI* was of interest to a smaller group of parents.

12. Carleton Board of Education, Research and Planning. (1992). *Secondary School French Immersion Study.* Nepean, ON: Carleton Board of Education. 37 pp. and 4 appendices.

This study was part of the follow-up to the 1989 *I/RPS* (#11), because a number of issues related to secondary school French immersion had arisen, issues that required further study. The Consultative Committee responsible for this study devised questionnaires for students, teachers, and parents to investigate issues having to do with attrition/retention of secondary students in French language courses. As well as presenting the findings from the questionnaires with an interpretation and discussion , the report includes a review of the literature on attrition/retention of students in FI programs at both the elementary and secondary level. Finally, there are a number of recommendations.

Findings: The literature review mentions a number of studies that looked at reasons for student attrition at the elementary level, and six at the secondary level, but none noted differing rates or reasons for the withdrawal of students from the various FI options.

Retention/attrition rates: The findings from the questionnaire given to grade 8 and grade 12/OAC students showed that there was a significant difference in retention/attrition rates among students in terms of their French immersion background. In Grade 8, 60% of students who planned to complete five or fewer French immersion credits in secondary school were in *LFI;* 61% of students who planned to complete 10 or more credits were in *EFI* . The percentages were similar for Grade12/OAC students: 65% of students who planned to complete five or fewer FI credits had been in *LFI* in Grade 8; 58% of students planning to complete six to nine or more FI credits were in *EFI* in Grade 8; 54% of students who planned to complete ten or more FI credits had been in *EFI* in Grade 8. Findings also indicated that a higher percentage of *EFI* students (62%) than *LFI* students (49%) planned to qualify for the CBE Certificate of French Immersion.

Overall, there was a higher attrition rate from the secondary program for former *LFI* than *EFI* students. Those who planned to complete ten credits in French at the secondary level make up one group of those who were retained. These students were 55-57% female, and 54-61% had been in *EFI.* The profile of the group planning to take six to nine courses in French does not include information about their particular FI program option in grade 8. Those students who planned to take five or fewer secondary school credits in French were more likely to be male (53-54%), and 60-65% of them had previously been in *LFI.* Finally, although there was no significant difference between the overall averages of grade 8 or grade12/OAC students from *EFI* compared to those from *LFI,* students from *LFI* agreed significantly more strongly than did students from *EFI* with the statement that courses in French lowered their marks.

13. Carleton Board of Education, Research and Planning (1994). *French Immersion Update.* Nepean, ON: Carleton Board of Education. 81 pp. and 25 pages of tables.

This study was undertaken by the CBE in order to update findings from its 1989 I/RPS study (**#11**).Two of its objectives were 1) to update findings from the *I/RPS* research literature review by Edwards (1989, **#7**), and 2) to explore the capacity to predict savings by changing the method of delivery of immersion programs.

The *review of research* published from 1989 -1994 showed no major changes since the Edwards review. *EFI* is still seen as providing the best achievement for the greatest number of students. *EFI* students tend to outperform *MFI* and *LFI* students at no long-term cost to their acquisition of English language skills. In terms of alternative entry points, the study points out that the OBE experience with *MFI* (offered since 1985) has been that *EFI* programs have not been reduced in number, large numbers have not been drawn to the *MFI* program , and there has been a higher dropout rate from *MFI* than from *EFI* .

In terms of *savings*, the study examined the idea that one entry point to immersion would reduce the costs of immersion. According to CBE figures for 1993, *EFI* programs as currently operated are no more costly than the regular English language programs, and *LFI* costs are only slightly higher than the regular English program due to smaller class sizes. These calculations do not include the accomodation of students from special program placements, or the revenues generated by French immersion grants. (These grants are applied across the school system, not just to immersion programs.) The study also concludes that if immersion programs were eliminated altogether, there would be no savings because the same costs would then be transferred to the regular English program. There might also be additional costs for program development and teacher displacement.

Transportation costs appeared to be the one area where savings might be realized by having only one entry point to immersion (e.g. *MFI*), assuming that large numbers of students would no longer have to be bused. However, the study concluded that 1) the need to congregate students for an *MFI* program would likely require the designation of some schools as junior level French centres or English centres, thus removing the use of that school as a 'neighbourhood school', and 2) similar savings might also be realized by dual-tracking all elementary schools or 3) by changes to transportation in general, changes now being carried out by the board. Such solutions would avoid the considerable hard costs of starting new programs and displacing staff, and the soft costs of discontinuing programs popular with parents (e.g. *EFI*). The study concludes that a more extensive understanding of the nonmonetary factors that might be affected by changes in the delivery of immersion programs is needed.

14. Carleton Board of Education, Research and Planning (1995). *French Immersion Program Issues: Trustee Interview Report.*. Nepean, ON: Carleton Board of Education. 7 pp. and 2 appendices.

Before formulating a plan of action based on the findings of the CBE's 1994 *French Immersion Udate* (**#13**), it was decided to interview the 14 trustees of the CBE in May-June of 1995, to discover their concerns and questions regarding French Immersion programs in the CBE. Each trustee received a brief history and summary of the Board's French as a Second Language programs, as well as a set of general questions to answer. Essentially, they were asked *if the status quo should be changed in the CBE's FSL programs*, and to *comment on or suggest possible change options* . Every trustee did not necessarily comment on all the issues. This document presents a synthesis of the views expressed by the trustees in those individual interviews on issues that received comments from a significant percentage, as well as a summary table (Appendix B) listing the areas of principal concern, and a listing of all the opinions and comments received as to possible solutions to those issues.

Findings: The areas of principal concern that emerged were 1) declining enrolment in the LFI program; 2) blending of LFI and EFI students in secondary school; 3) insufficient student enrolment in FI at the secondary level to keep the program in all schools; and 4) the real and/or perceived impacts of the FI program on the system as a whole. Suggestions for dealing with these concerns varied, but few trustees were entirely satisfied with the status quo. Change options favoured by a relatively large number of trustees were: 1) Increase the number of dual-track schools (7 in favour; 1 opposed; remaining 6 did not comment on this); 2) Consolidate or eliminate the *LFI* program (6 in favour; 3 opposed; remaining 5 did not comment on this); 3) Eliminate blending of *EFI/LFI* students at Grade 9 and consolidate the secondary FI program in fewer schools (7 in favour; 4 opposed; remaining 3 did not comment on this). Other suggestions were received but were either opposed by a substantial number of trustees or mentioned by relatively few as an issue. These were: 1) raise the *EFI* entry point to grade 1 or later (4 in favour ; the others did not comment); 2) Introduce MFI (6 in favour/7 opposed); 3) improve/change the regular/Core French program (7 in favour/ 6 felt it was not necessary); 4) examine alternatives to FI as a method of teaching second/third languages (3 in favour/2 opposed; the others did not comment); 5) track CBE graduates to determine French use in post-secondary studies or employment (3 in favour/2 opposed; the others did not comment); 6) investigate the effectiveness of the Board's first language teaching (3 in favour; the others did not comment).

It was decided that there was a need for full consultation on these issues with the full group of trustees, to see whether a consensus of views could be reached on one or more of the options and suggestions raised.

15. Clark, Vivien. (In progress). *An Assessment of the Effect of French Immersion Programs on the Cultural Knowledge and Perception of Francophones of Early and Late French Immersion Pupils at the Grade Nine Level.* Master's Thesis, Memorial University of Newfoundland.

A questionnaire designed to test four types of cultural knowledge was administered to all grade 9 *EFI* and *LFI* students in St. John's. The results were analyzed according to the variables of FI program, gender, time spent watching TV and listening to radio outside of class, and trips to francophone *milieux* .

Findings: There was no difference between the two groups. Cultural knowledge of all the students in both programs was quite limited. The factor which contributed most to a positive attitude towards francophones and an appreciation of their culture was travel.

16. Dicks, J. (1992a). Analytic and experiential features of three French immersion programs: Early, middle and late. *The Canadian Modern Language Review*, 49 (1): 37-59.

Several comparative studies of *EFI*, *MFI*, and *LFI* have shown that students in all three programs perform similarly on a number of second language tasks , but have found a persistent advantage for *EFI* students on more experiential tasks, (i.e. those that involve communicative, or message-centred, use of the language, or features such as oral expression or fluency) as opposed to more analytical tasks (i.e. those that focus more on the formal features of the language, such as grammatical structures, especially in a written mode). This study sought an explanation for this in terms of the *pedagogical approaches* used in each program. (see also Dicks, #17). The author presents findings from a classroom-based observation study designed to determine the degree of analytic and experiential focus in the pedagogical approach in the early, middle, and late French immersion programs in the OBE. The language-related activities in 14 Grade 6 and grade 8 French language arts classes in these three FI programs were studied in terms of their analytic and experiential features, in order to determine if pedagogical differences might account for different levels (or different types) of competence in French in the various programs. Two French language arts classes were observed in each classroom on two separate occasions at least 6 weeks apart. Detailed descriptions of classroom activities were written immediately after each class, based on notes taken and tape recordings made during the class.

Findings: LFI instruction in grades 6 and 8 tended to be more analytical in focus, whereas the *EFI* instruction tended to be more experiential, with *MFI* falling somewhere in between with respect to those two features. Dicks concludes that the greater percentage of analytic teaching used with older students in later-starting programs (*MFI* and *LFI*) may account for their more rapid gains in form-focused language tasks. This in turn could explain their ability to perform as well as the *EFI* students on written, analytical tasks within a relatively short period of immersion

instruction. However, in the case of oral fluency and other kinds of experiential language use, as a number of other studies have shown, this was not the case; a greater instructional emphasis on experiential language use may explain *EFI* students' ongoing advantage in these areas. According to this study, "an early start and extensive exposure" to French "appear to be crucial factors which influence the teaching approach, and, ultimately, the proficiency of students with respect to communicative language use" (p.51). While the author cautions readers about the limitations of the research due to the small number of classroom observations, and certain gaps in the observation scheme used, he believes the study provides a starting point for another important basis of comparison of the various FI programs, and the French proficiency outcomes of their respective students.

17. **Dicks, J. (1994). *A comparative study of the acquisition of French verb tense and aspect in early, middle, and late French immersion.* Unpublished Ph.D.Thesis, University of Ottawa: 53-221.**

This thesis examines the development of students' French verb tense use in three FI options in the OBE: *EFI* (beginning at 5 yrs), *MFI* (beginning at 9 yrs), and *LFI* (beginning at 11 yrs). This examination was part of a larger goal, which was to study the issue of starting age in second language acquisition in a school setting. Those who argue for an early start (*EFI*) cite the larger number of cumulative hours of exposure to the language, and the more 'natural' acquisition of the language by young children. Others, who favour a later start in FI (as in *MFI* or *LFI*), claim that this 'natural' process is not limited to young children, and that an older child's advanced cognitive abilitiy and first language literacy skills result in more rapid and efficient language learning.

Neither of these arguments, Dicks points out, adequately takes into account the complexities of second language learning. Teaching practice may vary greatly from one FI class to another, and the types of language tasks that learners are expected to perform may also vary. Thus he included for consideration in his study the effects on second language performance of the type (experiential vs. analytical emphasis) and degree (hours and intensity) of exposure to French, as well as different kinds of assessment tasks. The types of instructional emphases studied were reflected in the assessment tasks: an elicited imitation task as a measure of oral grammar and fluency, and a written cloze task focusing on verb endings. Fourteen separate FI classes were studied: eight at Grade 6 and six at Grade 8. There were two classes per program at each grade level except for Grade 6 *MFI*, where 4 classes were involved.

Findings: French language skills : Overall, the students from *MFI* performed at a level between that of *EFI* and *LFI*. These findings suggest an advantage for *EFI*, and for the *MFI* Grade 4 entry point over that of *LFI* in Grade 6.

Dicks points out several limitations of the study, including the restricted number of classroom observations, difficulties with one of the tests, and a delay in some data collection due to a teachers' strike.

Differences in pedagogy: Classroom observations indicated that a greater proportion of experiential activities were used in *EFI* classes, while classes in later-starting programs (*MFI* and *LFI*) had a higher proportion of analytic tasks. (see Dicks, 1992a, **#16**). These differences, like differences in starting age, influenced the rate of learning as well as learners' probable ultimate proficiency in the language - but were themselves influenced by the age of the learners and their fluency in the language. Dicks found that students in later starting programs are, in some cases, able to catch up to their peers between grades 6 and 8 in earlier starting programs on a more analytic, written task. *LFI* student performance, and to a lesser extent that in *MFI*, reflected a more rapid rate of acquisition from grade 6 to 8 on this task than on the more message-focused, oral task. Dicks recommends further investigation of features of the tasks used to assess students' French language skills in FI programs, in order to more accurately assess and compare their performance.

18. Dingle Drover, Z. L. (1988). *An Evaluation of the late French Immersion Programs in the Province of Newfoundland for tne School Year 1986-1987.* Unpublished Master's Thesis, Memorial University of Newfoundland.

This study compared the achievement of *EFI* and *LFI* students at the junior high school level in Newfoundland. Students were tested using two measures of French skills: the International Education Association (IEA) tests of Reading and Listening Comprehension; two mathematics achievement tests; and several subtests of the Canadian Cognitive Abilities Test (CCAT). Mean scores for the various tests were compared by program and school district. Some adjustments were made for cognitive abilities in the other comparisons made between the students.

Findings: *French language skills:* Students in *EFI* scored only slightly higher in reading and listening comprehension than *LFI* students.

Mathematics achievement: LFI students had poorer mathematics performance in grade 7 compared to *EFI* students, but this difference had disappeared by grade 8. In grade 9, when *LFI* students changed back to instruction in English, the lag appeared again.

Population served: Students in the *LFI* program were more highly selected cognitively than those in *EFI*.

19. Genesee, F., Holobow, N., Lambert, W., & Chartrand, L. (1989). Three elementary school alternatives for learning through a second language. *The Modern Language Journal*, 73 (3): 250-263.

This article reports the results of a comparative evaluation of three French language programs for English-speaking students in Montreal: *EFI*, with no English language arts until grade 3, Delayed French immersion (*MFI*) begun in grade 4, with 60% of instruction in grades 4 and 5 in French, down to 50% in grade 6, and *all-French schooling*, in schools where 85% of the children were native English speakers. For comparison purposes, a control group of native French speakers in all-French schooling was also tested.

The researchers posed three main questions: 1) Does extended second language exposure in the absence of significant peer contact in the target language (as is the case for anglophone students in all-French schools) improve second language proficiency? 2) Are there benefits to second language achievement associated with *MFI* as opposed to *EFI?* and 3) What are the effects, if any, on first language development resulting from delayed and greatly reduced instruction in the first language?

This was a longitudinal evaluation. The first phase, in grade 4, assessed the English language skills of the anglophone students who had been in all-French schooling for 3 years. This was followed by comprehensive testing of all groups on French language skills, English language, and mathematics achievement, at the end of grade 5. Four groups of grade 5 students participated: 1) anglophone students in all-French schools, known as the *Experimental Group;* 2) *EFI* students; 3) *Delayed French immersion* (*MFI*) students; and 4) *French Control* students (francophone students in all-French schools). The students were carefully matched for age, socioeconomic status and family background, and ongoing participation in their respective schooling options (since kindergarten or grade 1). The report presents data from students in four original pilot groups at the end of grade 5, and from four follow-up groups who finished grade 5 a year later.

Findings: *French language skills:* Generally, the French proficiency results showed that the *Experimental* students in the pilot year did not differ significantly from the *EFI* students on any measures, although their scores were generally numerically higher. More extended exposure to the second language without opportunities for extensive peer interaction in that language appeared to have limited advantages. Although they performed as well as the *French Control* (*francophone*) students on some measures (tests of reading comprehension, on three of five writing scales, and four of the eight error analysis categories), *both groups - EFI* and *Experimental* - obtained significantly lower scores than the *French Control* group in French listening comprehension , on written error analysis tests, and on most of the French production scales. The *MFI* students performed significantly lower than all students in the other groups on all the French language tests, except in the French mathematics test, where they performed

as well as the others. In the follow-up year, the *Experimental* group scored significantly higher than all three other groups on the *French mathematics test* , and higher than the *EFI* and *MFI* students on the French cloze reading comprehension test as well as in French language arts. However, while results for the written compositions showed no significant differences among the 4 groups, the *MFI* students were again generally less proficient in French than the *Experimental* and *EFI* students, who in turn were less proficient than the *French Control* students on a number of French measures, especially in speaking ability, and similar in others, e.g. reading comprehension, some writing measures, and error analysis.

English language/ mathematics achievement: Results for both years (pilot and follow-up groups) were similar for all the anglophone groups. There was no detrimental effect on English language skills for the *Experimental Group*, in spite of longer participation in all-French schooling. In fact, results for the follow-up year showed a number of differences in favor of the Experimental group in English reading comprehension and the two mathematics subtests. There were no significant differences in vocabulary, spelling, or language expression.

The writers conclude that in terms of the differences found between the *EFI* and the *MFI* groups, two interpretations are possible. The overall stronger performance of the *EFI* students on most measures of French proficiency (reading, listening, and speaking), might argue for the advantages of an earlier starting age, but they may also simply be the results of more exposure to French. On the other hand, the lack of differences between the performance of *MFI* and *EFI* students on a few of the French language tests (especially in writing), in spite of the more extended exposure to French for the *EFI* group, may also indicate an advantage for *MFI* students because of their older starting age.

20. Harley, B., Hart, D., & Lapkin, S. (1986). The effects of early bilingual schooling on first language skills. *Applied Psycholinguistics*, 7 (4): 295-322.

Between 1970 and 1979, three successive cohorts of *EFI* students enrolled in Ontario schools were evaluated in each school year from kindergarten to grade 6 for the Bilingual Education Project. This multi-year, multi-cohort research found that, beginning in the mid-elementary grades, the *EFI* classes, matched or outperformed comparison groups from the regular English program on a number of language subtests of a standardized test of basic English skills. This study was undertaken to verify those findings from a new longitudinal perspective, in order to determine if the development of English language skills in individual students over time would be consistent with the findings established on a group basis. Using accumulated data from the Bilingual Education Project, individual students from the *EFI* and *regular English programs* were carefully matched (on the basis of cohort, school board, individual school, sex, age, and IQ) in order to compare the pattern of development of their first and second language skills. This comparison led to specific hypotheses

about the first language skills that may have been enhanced by participation in the *EFI* program, hypotheses that were tested on a new, larger sample of immersion students in the second year of this two-year research project.

Findings: The longitudinal comparative findings from individual *EFI* and English program students supported the earlier findings of the cross-sectional (group) comparisons of the Bilingual Education Project. While no evidence was found for an *EFI* advantage in composition writing, overall, from grades 4 to 6, there was a general tendency for *EFI* students in both the upper and lower French proficiency subgroups to score better on the tests than their matched pairs in the regular English program. More specific testing was then carried out on the new larger sample of *EFI* students in order to determine which of their first language skills might have been enhanced. In this second study, it was still not possible to determine the exact nature of the relationship between immersion schooling and this enhancement of English language skills. The authors speculate that the first language skills in which enhancement was found (i.e. in grammatical usage, knowledge and use of reference materials, and in discourse interpretation skills) may have as much to do with the nature of learning activities in the *EFI* classroom as with the bilingualism of the students. Further studies are needed for more specific answers.

21. Hart, D., Lapkin, S., & Swain, M. (1992). *Comparative evaluation of modes of delivery of FSL in the Maritime Provinces: The case of French Immersion at Grade 9.* Toronto: Modern Language Centre, Ontario Institute for Studies in Education. 71 pp. and many tables and appendices.

A comparative evaluation of French language outcomes of two French immersion options, *EFI* and *LFI* was carried out in the Maritime provinces. Questionnaires and tests of four skill areas developed for the large Metro Toronto comparison evaluation of *MFI* and *EFI* (Lapkin et al 1991, **#23**) were administered to 60 *EFI* and *LFI* Grade 9 classes, representing about half the eligible classes.

Findings: In PEI, *EFI* students outperformed *LFI* students on listening and on one main speaking measure. *LFI* students performed as well as those in *EFI* on measures of writing ability. In Nova Scotia, *EFI* students obtained higher scores than *LFI* students on most measures in all skill areas. In New Brunswick, *EFI* students outperformed those in *LFI* on measures of listening comprehension, speaking ability and cloze tests.

22. Hart, D., Lapkin, S., & Swain, M. (1989). *Final Report to the Calgary Board of Education: Evaluation of Continuing Bilingual and Late Immersion Programs at the Secondary Level . Sections 1 and 2.* Toronto, ON: Modern Language Centre, Ontario Institute for Studies in Education. 50 pp. and many tables and appendices.

The authors carried out a detailed study of *EFI* and *LFI* French language outcomes in Calgary, using random samples of 8 students from each of seven grade 9 classes in 4 schools. The students were given a test of written and oral skills and a short questionnaire. An oral test was also administered to a random sample of 8 to 10 grade 12 students from eligible classes. All grade 12 students from eligible classes responded to the remaining tests and a questionnaire. The following year all participants in the grade 12 study received a follow-up survey by mail. There was a 56% response rate.

Findings: *French language skills:* Grade 9 *EFI* students continued to outperform *LFI* students in speaking ability. In the grade 12 comparisons, however, no significant difference was found on test performance between students from the two programs in any skill area. Unlike the elementary program, the secondary program combined *EFI* and *LFI* students in the same classes with the same teachers. It was not possible to determine if weaker *LFI* students had dropped out of the program.

In general, students from all levels and programs rated their listening skills as about the same as those of francophones, but very few rated their speaking skills as similar. *EFI* students at the Grade 12 level assessed their abilities compared to native speakers as higher than *LFI* students, even though the tests revealed no significant differences in their speaking ability.

23. Lapkin, S., Hart, D., & Swain, M. (1991). Early and middle French immersion programs: French language outcomes. *The Canadian Modern Language Review*, 48 (1): 11-40.

This article reported outcomes of a large-scale evaluation of *EFI* and *MFI* programs in the Metro Toronto area see Hart, Lapkin, & Swain,1988), involving 4 boards and 26 grade 8 classes (10 *EFI* and 16 *MFI*). While the initial evaluation included a detailed examination of the social characteristics of the two program populations, the main focus here was to compare *EFI* and *MFI* students in terms of their French proficiency at the end of Grade 8. French tests appropriate for the two populations were developed for listening, reading, speaking, and writing skills, with particular attention to proficiency areas where earlier research had found program differences.

Findings: French language skills: While mean and median scores for *MFI* students were below those of *EFI* students in almost all cases, the authors were careful to determine which results constituted a "substantial" difference, based on the type of test involved. Overall, the *EFI* students significantly outperformed the *MFI* students in all 4

skill areas, with *MFI* students' speaking ability the weakest in comparison to the *EFI* student performance. An important exception to this pattern was the ability to state and support an opinion, an ability the authors assumed is more easily transferable from English to French. In addition, *EFI* performance on comprehension skills was closer to francophone standards than *MFI* performance was to *EFI*. The results also showed that the *MFI* program produced less consistent levels of performance than *EFI*, with *MFI* students producing a wider range of scores than those in *EFI*.

While there was a marked difference in the social composition of the two programs, this did not account for differences in French language outcomes. The main determinants of these differences in outcome, according to the authors, are starting grade and accumulated hours of exposure to French. However, they caution that in order to properly compare the two programs, it is essential to reassess French proficiency for the same students at the end of secondary school when the *MFI* students have had more exposure to French, something not yet done with *MFI* secondary school graduates.

* NB: As Dicks (1992b) points out, it is important to note that the *MFI* students in this study received only 50% of their instruction in French from Gr.5 through Gr.8, which gave them a total of 2040 accumulated hours of immersion; the total number of hours for OBE *MFI* students by the end of grade 8 is 3500. In fact, the *MFI* program in this study is really a 50/50 bilingual program. All comparisons and evaluations of the relative effectiveness of *EFI* and *MFI* programs should take into account the relative number of hours of school exposure to French.

24. MacFarlane, A. & Wesche, M. (1995). Immersion outcomes: Beyond language proficiency. *The Canadian Modern Language Review*, 51 (2): 250-274.

This article reports the findings from a study of 21 former immersion students (8 *EFI* and 13 *LFI*) ,1985 high school graduates six years after graduation, either working or in graduate studies. All had completed secondary school bilingual programs in the Ottawa area, and had participated in an earlier postsecondary follow-up study of the 1971 kindergarten group. This study looked at current self-assessed language proficiency, participants' stated sociocultural attitudes, and current French use patterns . All 21 participated in a questionnaire using open-ended and alternative-choice questions, and 13 participated in a taped, follow-up telephone interview.

Findings: Attitudes: Most of those students reported positive attitudes towards francophones, francophone communities, and French language use, and that French immersion had influenced on those attitudes. More positive attitudes were also related to more frequent use of French in social settings. The reported elementary immersion program features of 'use of French outside the classroom' and 'contact with francophones' were significantly and positively related to both attitudes and current use patterns. The authors found that there was a cluster of current integrative activities

in French and attitudes which were related to secondary school French proficiency and elementary school contact experience. The study does not report differences between graduates of *EFI* and *LFI* on the various criteria of sociocultural attitudes and language use patterns, and in fact, the main study failed to indicate long-term advantages for former *EFI* students when compared with former *LFI* students. However, almost without exception, these former FI students indicated that they would enrol their own child in an immersion program, and that the program of choice was *EFI*, even though many of them had completed *LFI* programs. In their responses the graduates indicated a perceived advantage for earlier and more extensive exposure to the language.

25. Netten, J. & Bartlett, C. (1994) *Report of the Evaluation of French Immersion Programs in the Province of Newfoundland: Kindergarten to Grade 9. School Years: 1989-1993.* St. John's, NFLD: Newfoundland Ministry of Education.

Testing and monitoring of French immersion programs in Newfoundland is carried out in the spring of each school year. Because earlier evaluations had indicated that progress in the subject areas is correlated with the level of achievement in French, a version of the Canadian Cognitive Abilities Test (CCAT), other measures of cognitive abilities, and a test of French reading ability are administered in each of grades 1 to 9. In grades 4, 6, and 8, the Mathematics Concepts and Problem Solving subtests of the Canadian Test of Basic Skills (CTBS) are given to each grade level in split halves: half of the students are measured in English, and half in French.

Findings: French language skills: At the intermediate level (grades 7 to 9), the French test results indicate that the *LFI* students, although more highly selected cognitively, do not perform as well as *EFI* students.

English language skills: During the evaluation period, English reading of *EFI* students in grade 6 is above that of local peers in regular English programs and considerably above average on provincial norms.

Academic achievement: Results on the problem-solving mathematics test at the end of grade 6 indicated that these*EFI* students performed better when complex reading content was tested in English than when it was tested in French.

26. Neufeld, G. (1993). Early French immersion and proficiency in English: Some long-range effects. *Language and Society*, 43: 8-10.

The focus of the research project summarized here was the long-range effects of EF*I* on what the author refers to as "high level psycholinguistic functioning" in English, functioning not accessed by standardized achievement tests. Did early school disruption in the use of English , the children's first language, affect the development of skills needed for the use of language in complex thinking in adulthood? Two groups of

English-speaking University of Ottawa students, 20 of whom had been in *EFI* and 20 in the regular English program (with Core French), served as subjects for the study. Their use of English was tested in four areas: vocabulary richness, sensitivity to multiple meanings in statements, tolerance for non-standard structures in grammar, and ability to rapidly construct well-formed, meaningful utterances on a variety of topics, many of which involved abstract concepts and ideas. The study found, like previous studies, that *EFI* produced no adverse effects on the students' English, either immediate or long-range. The study found, further, that the *EFI* graduates showed more figurative or metaphoric use of English than those who had followed the regular English program.

27. Newport, E. L. (1994). Maturational constraints on language learning. In P. Bloom (ed.). *Language Acquisition: Core Readings*. Cambridge, MA: MIT Press, p. 543-559.

In this article, Newport presents evidence that shows that second language learners in different maturational states do not achieve the same language outcomes and that in second language acquisition the child, and not the adult, " appears to be especially privileged as a learner." (p.544). Her research examined the grammatical competence of 46 subjects at the University of Michigan for whom English was a second language. All of them had been resident in the U.S. for at least 10 years prior to testing, but they varied in age of arrival from 3 to 39. This wide range in age of arrival allowed the researchers to relate age of acquisition to performance in English, from early childhood up to adulthood. The basis for assessing English competence was a 'grammaticality judgement test'. This involved listening to a recording of 276 simple short English sentences, half of which were grammatical sentences, and half of which contained one violation of some obligatory grammatical pattern in English. Subjects had to say whether the sentence was grammatical or not. Twenty-three native English speakers were also tested.

Findings: The study found a strong relationship between age of arrival of the subjects and performance on the test, with performance declining as age of arrival increased. Analysis showed that these effects were not due to differences in formal instruction in English, length of experience in English, amount of initial exposure to English, reported motivation to learn English, self-consciousness in English, or identification with American culture. Furthermore, there was a very high correlation between different ages of arrival and performance for learners who arrived before age 15, but for those who arrived after puberty (age 17-39), there was almost no correlation between performance and an earlier or later age of arrival. Thus, the results support the claim that the effects of age of acquisition are effects of the maturational state of the learner, and that these effects disappear after puberty (when maturation ends). "Language learners who begin acquiring languages at an early maturational state end up performing significantly better in that language than those who begin at a later stage", the author concludes, and "the effects over time are approximately linear through childhood, with a flattening of the function in adulthood."

In terms of the relationship of individual rules of grammar and age of arrival, control over word order and over the English morpheme *-ing* was similar for all learners. All other aspects, however, showed substantial differences between learners of different ages of acquisition. Children and adults appear to learn a second (or third) language differently because of the very different ways in which they analyze and integrate the various components of language. While there are various hypotheses that account for the nature and cause of these significant differences in language learning, "it is clear from [the] empirical evidence", Newport argues, that "some significant internal constraints" linked to maturational stages "are required to account for why children, and only children, uniformly succeed in learning language" (p.558).

Ottawa Board of Education, Research Centre. *The following 3 studies are listed chronologically, because they were all part of the OBE's longitudinal evaluation of the MFI program introduced in 1985:*

28. (OBE). Parkin, M., Bonyun, R., & Unitt, J. (1989). *Middle Immersion Study 1988.* Ottawa: Ottawa Board of Education. 67 pp.

This report presents information about the first and third cohorts of students in the OBE's *MFI* program, obtained through testing and questionnaires in the spring of 1988.

Findings: French language skills: The researchers found that the French production (speaking and writing) skills of *EFI* students in grade 6 were higher than those of *MFI* students in grammatical spelling, oral and written use of verb tenses, and on an overall test of French proficiency, but were similar in the areas of vocabulary, pronunciation, written composition, the use of communicative strategies, and fluency. In listening comprehension, the *MFI* scores were closer to those of students in *LFI* than in *EFI*.

English language and academic achievement: Scores on standardized mathematics and English reading tests were similar in all three FI programs, and like *EFI* and *LFI* scores, the *MFI* scores were somewhat higher than those in the regular English program.

Population served: According to the questionnaires given to *MFI* students and their parents, families of *MFI* students included a higher than average percentage of adults with post-secondary education and professional or managerial careers. The most commonly cited reason for choosing *MFI* over another immersion program was that parents wanted their child to receive a good grounding in English before starting education in French.

Effects on other FI programs: Enrolment in other FI programs continued to rise in spite of the addition of a new entry point in *MFI*. It appeared to meet the needs of a different population.

29. (OBE). Unitt, J., & Dionne, L. (1989). *The Middle Immersion Programme Update 1989.* Ottawa, ON: Ottawa Board of Education. 17 pp.

This is an update on the OBE's 1988 *MFI* study (**#28**), at the end of the fourth year of that program. Its objectives were 1) to compare the French proficiency of the first and second *MFI* cohorts and of groups of *EFI* students at the end of grade 6, 2) to examine and compare the English reading and mathematics scores of the grade 4 cohorts and students in other programs, 3) to compare the French proficiency of the three cohorts of *MFI* students at the end of grade 4, and 4) to assemble data for a larger population at the grade 4 and grade 6 level in the *MFI* program.

French language skills: The grade 6 *EFI* students continued to achieve considerably better than the *MFI* groups in the area of listening comprehension, in written and oral tense sequence, and in overall language skills as measured by the cloze test. The *EFI* scores for appropriateness in style were lower in 1989 than in 1988, but the *EFI* groups again consistently scored in a higher category than the *MFI* groups. Other differences in scores were not consistent for both years, and pronunciation scores for both groups were lower in 1989 than 1988. In general, results for the two *MFI* cohorts on the French production tests were similar to those of two grade 6 *MFI* groups from Toronto.

English language skills and academic achievement: In 1989 the grade 4 *MFI* group scored higher than the *EFI* group on both parts of the grade 3 English reading test . The 1989 *EFI* cohort, however, appeared to be a weaker group than the previous year's cohort. Otherwise, scores on achievement tests were similar, and both groups scored higher than students in the regular English program.

30. (OBE). McVey, M., Bonyun, R., Dicks, J., & Dionne, L. (1990). *Early, middle or late? Ottawa Board of Education students in three French immersion programmes in Grade 6 and Grade 8.* Ottawa: Ottawa Board of Education. 25 pp.

This study was part of the ongoing evaluation of the OBE's *MFI* program, which was introduced in 1985. The 1990 study was undertaken because the first *MFI* group had completed grade 8 and this was an important point at which to compare them with their *EFI* and *LFI* peers, with whom they would enter blended grade 9 bilingual programs. Extensive data-collection was carried out, with fourteen grade 6 and 8 classes, two from each of the three programs in both grades, with two extra *MFI* classes in grade 8. The research involved classroom observations of two French language arts lessons for each of the classes, approximately six weeks apart, using an observation scheme designed to classify classroom events and pedagogical approach according to certain methodological categories (communicative/experiential vs. analytic; see Dicks, 1992a, **#16**; Dicks, 1994, **#17**). In-school testing for all groups used the same French proficiency test used in the earlier *MFI* studies (see **#28** &

#29). Information about student movement in and out of the *MFI* program, and students' scores on standardized tests of English reading and mathematics were also obtained for all the students.

Findings: French language skills: Among the three groups at grade 8, both *EFI* classes performed significantly better than the *MFI* classes on the cloze test and for preposition and verb tense errors, and both *LFI* classes were weaker. On other measures, like "Appropriateness of Style" and "Communicative Strategies", there seemed to be more variation among classes within a programme than there was among the three programme groups. In general, however, the French proficiency of *MFI* students tended to be between that of the *EFI* and the *LFI* students, and scores for the grade 8 *LFI* groups were similar to those for grade 6 *EFI*. The authors comment that this is not surprising in light of the relative number of hours of instruction in French.

Some of the skills measured improved in all three groups between grade 6 and grade 8: for example, the grade 8 *EFI* students made significantly fewer errors in prepositions and verb tenses than the grade 6 *EFI* students, and scored higher on the cloze test and the "Sophistication of Vocabulary" measure. In general the grade 8 *EFI* group obtained higher scores, except in "task fulfilment" where the grade 6 group did somewhat better. The grade 8 *MFI* group had a higher score on the cloze test and for variety of vocabulary than the grade 6 *MFI* group, and thay made fewer verb tense sequence errors. The Grade 8 *LFI* group scored higher than the grade 6 *LFI* group on all measures except the "task fulfilment" measure, but differences for the two groups were only significant on the cloze test.

English language skills and academic achievement: All three immersion groups generally performed somewhat better than students in the regular English program in English reading (Grades 3, 6, & 8), and mathematics (grades 3, 5, & 7), and the difference tended to be greater at the higher grade levels. Students in the three FI programs had similar mean scores in most cases.

Pedagogical issues: Classroom observations revealed that overall, the *EFI* curriculum showed more communicative (experiential) characteristics than form-focused (analytic), and that the *LFI* curriculum was predominantly analytic (see Dicks, 1992a, # **16**). The *MFI* classes tended to have a more mixed approach, often combining communicative and analytic features.These findings were the same for both grade 6 and grade 8. This finding appeared to be a function of a number of factors, especially the age of the students and their fluency in French.

Enrolment patterns: Introduction of the *MFI* program did not appear to have substantially reduced the proportion of students choosing either the *EFI* or the *LFI* option. The percentage of students choosing *EFI* and *LFI* remained relatively stable in the OBE between 1985 and 1989.

31. Peel Board of Education (1992). *Immersion and Extended French Program Review.* Mississauga, ON: Peel Board of Education, Research and Assessment. 200 pp.

This comprehensive review of Immersion and Extended French instruction in the Peel Board had three objectives: 1) to prepare a descriptive overview of the Immersion literature and of the Immersion and Extended French programs in the Peel Board; 2) to determine the perceptions and attitudes of students, parents, teachers, and school administrator toward Immersion/Extended programs, and 3) to determine the relative effectiveness of the Immersion and Extended French programs, especially in terms of student French language outcomes.

In order to meet objective 2, a survey was carried out with 1) elementary and secondary Immersion students (grades 6 - 8, 10, and OAC), 2) parents of students currently enrolled in Immersion/Extended French, 3) parents of Immersion students who had been withdrawn from the program in the year preceding the interview, 4) Immersion/ Extended French teachers, and 5) administrators in schools offering these programs. The surveys inquired about attitudes/opinions about aspects of the program, students' progress and competence in French and English, good things about the programs, suggestions for improvement, the value of immersion, program resources, remediation, and teacher in-service training. Generally, the respondents reported positive attitudes toward the programs. Students as well as parents/teachers/ administrators were supportive of the Peel *EFI* programs as providing a stimulating, valuable learning experience leading to strong English and French language skills. The respondents also expressed concerns about the limited number of secondary school courses available in French, the need for more French resources, issues of teacher effectiveness and workload, and home-school communication.

Perceptions of student outcomes (objective 3) generally reflected the positive perceptions of the students' French and English language skills expressed in the surveys. No long-term detrimental effects on English language skill were indicated, and academic achievement remained high in both programs.

Since the Immersion students had received 5220 hours of school exposure to French by the end of grade 8, and the Extended program students had received only 1260 hours, the study also sought to examine whether such differences were reflected in French proficiency results. Both Grade 8 and OAC students were tested, the grade 8 students with the same test used in the large 1988 Metro Toronto Study (see Lapkin et al, 1991, **#23**), while the OAC students received revised versions of some sections of the Senior French Proficiency Test (SEPT) used in the follow-up study of Immersion graduates in the Ottawa area (see Wesche, 1993, **#33**).

Both test sets measured receptive (listening, reading) and productive (speaking, writing) skills. As well, both included a Listening Comprehension test, a Sentence Repetition task, a Cloze Test, and Open Speaking and Open Writing tasks. The OAC test also included a multiple-choice Reading Comprehension Test.

Findings: French language skills: At the grade 8 level, Immersion students, on average, significantly outperformed Extended students on measures of listening, speaking and reading. The two groups did not differ significantly on measures of writing ability.

At the OAC level, Immersion students obtained significantly higher scores than Extended OAC's on all measures of speaking ability, on the Cloze test, and on one measure of listening. There were no substantial differences on the Listening Comprehension Test, the Reading Comprehension Test, on the Written Opinion measure.

Overall, the Immersion students in grade 8 and OAC classes tended to show stronger French language skills than the Extended students, especially in speaking ability. The author concluded that this was a reflection of the greater number of hours of exposure to French in the Immersion program.

32. Rehorick, S. (1993). *French Second Language Learning in New Brunswick Schools: Paradigms, Challenges and Strategies.* Faculty of Education, University of New Brunswick. 64 pp.

This review of French second language education in New Brunswick, commissioned by the Ministry of Education, had as its objective the development of recommendations to the Department in three areas: 1) guidelines defining minimum requirements for all school districts with regard to French second language programs, 2) consultative processes for school districts that would lead to effective parental input regarding French immersion education at the community level, and 3) assessment models that could be used to monitor student progress and outcomes and evaluate teacher and program effectiveness. Consultation with diverse stakeholders and consideration of relevant research findings led to the report which describes current FSL programs and issues in New Brunswick, defines expectations for such programs held by the various groups involved in second language learning, and recommends a provincial policy to provide more consistent and enhanced French second language education throughout the province.

The 1995 New Brunswick provincial policy (New Brunswick Ministry of Education, #38) reflects the recommendations of this report. In addition to standards for Core French programs to be available in every school, it establishes two immersion entry points for implementation by communities according to local requirements, EFI (SK/grade1) and Intermediate immersion (grade 5). Time distribution profiles, total hours of exposure to French, and expected proficiency standards are set for each. The standards are linked to assessment procedures, including an oral evaluation, for grades 3, 6, and at the end of secondary school.

33. Wesche, M. (1993). French immersion graduates at university and beyond: what difference has it made? In James E. Alatis (ed.) *Language, Communication, and Meaning.* Georgetown University Roundtable on Languages and Linguistics. Washington,D.C.: Georgetown University Press: 208-240.

In 1985, Wesche and colleagues, in collaboration with the OBE, began a six-year study of two groups of graduates (1985 and 1988) from Ottawa-area FI programs, all of whom had completed secondary school bilingual programs, and who had reached university age and beyond. The study looked at the graduates' French proficiency , including differences in that proficiency based on the type of immersion program they had been enrolled in (*EFI* or *LFI*); their use of French in daily life and their attitudes about using it; their attitudes toward francophone Canadians and French/English relations in Canada; and their attitudes toward immersion schooling and toward certain features of the program. The first group was followed for six years, and the second for three. The 1985 cohort included 81 students tested at the end of high school in 1985, 48 of whom were available for retesting in 1988, and 21 of whom participated in a post-university study in 1991. (see MacFarlane & Wesche, 1995, **#24**). The second, or replication cohort, included 154 high school graduates in 1988, 78 of whom were retested in 1991. Although results from the first group had been reported earlier (Wesche, Morrison, Pawley, & Ready,1986; Wesche,1988; Wesche, Morrison, Ready, & Pawley, 1990), the findings of the entire study were reported here for the first time.

Findings: French language skills: The French proficiency results at university entry showed that former *EFI* students in the 1985 cohort slightly outperformed the *LFI* students in listening comprehension, in the oral interview, and in their self-assessment. *EFI* students also reported greater frequency of French use. The differences in the oral interview scores had disappeared by the 1988 retestings however. A small, significant difference remained in listening comprehension and in self-assessment. In the 1988 replication group, no significant differences were found between the two groups on any variables, either at graduation or three years later. The graduates of *EFI* and *LFI* attending university, while in each case showing considerable individual variation, could not be distinguished from each other.

Population served: Cautioning that the conclusion that *LFI* programs are as effective as *EFI* is not indicated, the author points out that these findings may result from blending of students from the two groups in some secondary school programs, and may also reflect the different populations in the two programs. *EFI* programs take in a far greater proportion of the school population than *LFI* programs, which are academically demanding and tend to attract only students previously successful in Core French and academic study. In the OBE (according to 1991 statistics), the percentage of entrants to *EFI* in recent years had been 35-45% of the kindergarten population, while *LFI* attracted 8 -12% of the grade 6 population. What the results indicated, in Wesche's view, was that self-selected students of the type who complete

LFI and secondary bilingual programs can catch up with *EFI* students during secondary school.

Attitudes: In the 1991 post-university follow-up of the 1985 cohort, when questioned about their attitudes toward FI, 95% of the 20 respondents said they would send their own children to immersion programs. The overwhelming majority expressed a preference for *EFI*, even though most of them had been in *LFI* programs. Wesche adds that it may be relevant that this is the group in which differences in French proficiency favoring *EFI* were found.

C. EMPIRICAL STUDIES OF ALTERNATIVE INTENSIVE FRENCH SECOND LANGUAGE PROGRAMS

34. Lapkin, S., Harley, B., & Hart, D. (1995). *Revitalizing Core French: The Carleton Case Study : Report to the Carleton Board of Education and Canadian Heritage.* Toronto, ON: Modern Language Centre, Ontario Institute for Studies in Education. 40 pp. and appendices.

The purpose of this study was to investigate the effects of two alternative, 'compact' models of Core French program delivery: 1) one half day of instruction over a 10 week period (the half-day model), and 2) 80 minutes a day for five months , as compared to the current 40 minutes a day. Specifically, the CBE and the researchers wanted to see if this would result in improved student attitudes and achievement and create more timetabling flexibility in line with the restructuring of grade 7-9 education in Ontario (the 'Transition Years' approach).

The CBE arranged for one teacher to teach three Core French grade 7 classes, one using each model, with the same curriculum materials, in the 1993-94 school year. Students were assigned to classes on a random basis. A pre-test (a four-skills French test package) was given to all classes at the beginning of each program, and administered again as a post-test at the end. At the beginning of the 1994-95 school year all the students were again tested, using a test based on curriculum materials used in grade 7. Student questionnaires were also administered with the pre- and post-tests. The pre-test questionnaires focused on students' background in French and out-of-class exposure to French. Post-test questionnaires asked about their experience with learning French during that study period. Parent questionnaires near the end of the 1993-94 school year inquired about students' home backgrounds and parents' perceptions of their children's French-learning experiences over that school year. More information was also gathered using teachers' class notes/diaries and interviews, as well as observations and videotapes of the same, specific course units in classes in each model. (These were still being anlyzed at the time of publication.)

The specific research questions were, 1) Does concentrating French instruction improve French language outcomes?, and 2) If so, do those gains survive the long period students in the compact models spend without any formal instruction in French (up to 8 months)?

Findings: French language skills: The pre-test showed no statistically significant differences among the three classes. All three classes made gains over the course of their programs, but the two compact groups (10 weeks/half-day and 5 months/80 minutes) made gains on five of six tests, while the full year/40 minute group showed gains on only two of the tests. There were no differences in performance in listening comprehension and speaking. However, the half-day and 80 minute groups performed significantly better than the 40 minute group in reading comprehension. The half-day class also scored significantly better than the 40 minute class in writing, an advantage which continued into the following school year (grade 8), when follow-up testing was done in three skill areas. The follow-up tests showed no other differences for any group in listening, reading, or writing.

Attitudes/self-assessment: In general, the student questionnaires indicated that most of the students participating in the compact models enjoyed them, and felt that they learned French better that way. However, while their self-assessments indicated that they believed they had made greater improvements in their oral skills (in both pronunciation and fluency) because of more concentrated instruction in French, the actual speaking test results did not reveal differences between the groups. There was also some evidence that the longer class periods strained the students' attention span.

The authors suggest that the discrepancy between the students' self-assessment in speaking and the test results might be explained by inadequate measures of oral skills, and the lack of a follow-up speaking test in grade 8. They concluded that a longer class period (the compact model) may result in higher levels of French proficiency and promote more self-confidence in using French.

35. ORCSSB. (1993). *Review of the 50/50 French Immersion Program, JK to Grade 6.* Ottawa, ON: Ottawa Roman Catholic Separate School Board, Educational Services Department. 50 pp. plus appendices.

The 50/50 early French immersion program (JK - 6) was reviewed by M. Kasian in response to Board motion 244-82 to provide 1) a synthesis of current theoretical positions on second language learning, 2) a measure of community satisfaction with the 50/50 program, and 3) a synthesis of the views of teachers, principals and administrators on the 50/50 program particularly with respect to its ability to meet the needs of all students. The 50/50 program, offered on a universal basis in the Board's English elementary schools since 1975 (fully implemented by 1978), provides 50% of instruction from SK through grade 6 in French and 50% in English using alternate-day and/or half-day programming. French language subjects include French language arts, social studies, science, physical education and the arts, while mathematics, religion, family life and English language arts are taught in English. Students receive 2925 hours of French instruction by the end of grade 6. The program, which had not been systematically evaluated for a decade, is unique in its context (in a Board that formerly accomodated a large francophone community and French language school sector, and currently serves a large immigrant population), in its format (partial

immersion), and in the intention to serve all children. The 50/50 program is offered in all 23 elementary schools of the Board; however it is no longer universal in that 21 of the schools offer some form of modified program or special arrangerment involving less French instruction to children with exceptionalities or special needs (e.g. transfer students with inadequate French background, ESL students (8% overall), and children with language and learning difficulties). Schools varied considerably regarding the number of students in such programs, ranging from as few as 5 students in one school up to over 50% of the students in another, estimated at 20% overall. Modifications include no French instruction, Core French, and extended French (75 minutes a day).

During the consultative process, questionnaire and interview data was gathered from 2684 parents, 244 elementary school teachers (72%), all 23 elementary school principals, and 7 members of the senior administration.

Participating parents showed strong support for functional bilingualism as a curriculum objective, and for the current 50/50 program (or even more French instruction), which corresponded with principals' view that the 50/50 program worked very well for approximately 2/3 of the student population. Respondents in general discounted the 50/50 program as the cause of poor first language development and other learning problems, but both teachers and principals expressed strong support for the availability of alternative programs for some students. However, there was little agreement on what alternative program might be offered at the Board level to replace the existing modified arrangements at the school level, or how student placement should be governed. Many respondents, particularly senior administrators, noted the complex factors involved in French language programming decisions, and the scant likelihood of agreement on a single program to serve all children, as well as the fact that apparently simple solutions might lead to long-term problems.

36. Wesche, M., MacFarlane, A., & Peters, M. (1994). *The "Bain LInguistique": A Core French Experiment at Churchill Alternative School, 1993-94.* Final Report to the Curriculum Services Department of the Ottawa Board of Education. Ottawa, ON: University of Ottawa.

In 1993-94, the OBE piloted an experimental intensive Core French program (the "bain linguistique") with a class of 31 grade 5/6 students at Churchill Alternative School. Its objective was to improve the oral skills of Core French students, as well as self-confidence in their use of French. the program increased exposure to French from 120 to 450 hours for one school year, after which the students would return to regular Core instruction. Students spent half their day in French, working within the Core French curriculum and certain school activities (e.g. music, recreation). Academic subjects, including English, math, and science, were taught in English. It was believed that the *bain linguistique* would improve the long-term effectiveness of Core French, and also ease the transition to *LFI* for those students who opted for that program in grade 7. Results from similar programs for teaching English in Quebec support the idea that

intensive language exposure builds fluency which is maintained once students return to the regular program (Lightbown & Spada, 1994).

Outcomes in terms of students' gains in French listening and speaking proficiency were measured by means of French listening and speaking tests in a pre-and post-test design, and their attitudes toward French study and use were monitored by means of in-depth interviews with three focus groups during the course of the project.

Findings: French language skills: The students' listening and speaking skills improved markedly during the program. The significance and size of the improvement when compared with the non-significant differences between the grade 5 and 6 participants at the beginning of the program also suggests that the intensive exposure was probably much more effective than a similar number of hours of French instruction spread over a longer period of time.

Attitudes/self-confidence: Student enthusiasm was evident throughout the program, but the most striking attitudinal change was the students' self-confidence in using French. By the end of the year most of the students were relatively confident about their ability to understand and converse in French in classroom situations.

The improvement in oral French skills and self-confidence indicate that the program was successful in meeting its objectives. However, the authors point out that comparative longer-term experimentation and research in a variety of school situations would be required to demonstrate the long-term effect of such a "Bain linguistique" and its generalizability to other situations. They also note that the French language objectives of the "Bain linguistique" are those of the Core program, and thus fall far short of immersion program objectives.

D. OTHER DOCUMENTS: PROVINCIAL POLICY STATEMENTS AND INTERNAL SCHOOL BOARD REPORTS

37. Carleton Board of Education. Enrolment Statistics: 1978-1994.

Detailed enrolment statistics for *EFI*, *LFI*, and regular English programs in the CBE from 1978 to 1994 reveal trends in enrolment in the various CBE elementary programs. These are summarized for the years 1978, 1982, 1987, and 1994 in Appendix A. *EFI* enrolment increased dramatically from 1974 until the late 1980's , receiving 57% of the SK population in 1987, and leveling off to a still impressive 50% of the SK population in 1994. It remains a very popular program in the Board, with 41.5% of the entire elementary school population (SK - grade 8, excluding Special Education) enrolled in *EFI* in 1994.

There has been a gradual decrease in the enrolment in *LFI* in recent years, from approximately 22.5% of the grade 7-8 population in 1987 down to approximately 15.5% of all grade 7 and 8 CBE students enrolled in *LFI* in 1994.

38. New Brunswick Ministry of Education. (1994). Policy Statement 309: French Second Language Programs and Statement on French Second Language Programs: Notes for remarks by Hon. Vaughn Blaney, Minister of Education, Legislative Assembly, December, 1994. 13 pp.

This document presents the revised New Brunswick policy on French language programs which aims to provide N.B. students with the "opportunity to acquire proficiency in French" (p.1) via one of three programs: 1) Core French available in all schools, grades 1-12, with a minimum of 1300 hours of instruction in French; 2) EFI, grades 1-12, with 90% instruction in French in grades 1-3, and a minimum of 6600 total hours of instruction in French; and 3) Intermediate FI *(MFI)*, grades 6-12, with 70% instruction in French in grades 6-8, and a minimum of 3750 total hours of instruction in French. All three programs include 11 out of 32 secondary school credits taken in French. Existing LFI programs will gradually be phased out.

School boards are instructed to implement a FI program if sufficient interest exists to form classes of comparable size to other classes in the community at that level of instruction. This policy is based on the recommendations of Rehorick, 1993 (#**32**).

39. Ontario Ministry of Education and Training. (1996). *Excerpts from General Legislative Grants Calculations, 1990-1995 and Grants Estimates for 1996.* Document # 21-1280A. Toronto, ON: Ontario Ministry of Education. 24 pp.

This document sets out the Ministry of Education policy for calculating grant credits of FSL programs of school boards, specifically as applied to the OBE. This is presented showing 1990-96 calculated and estimated OBE grant credits for french second language programs including French as a subject and other subjects taught in the French language. Such information is relevant to the costing of FSL program changes; for example, reduction in French instruction would lead to grant reduction. Presumably, a school board such as the OBE which is currently in a zero grant position would have its existing FSL grant credit reduced for any grant reduction in FSL programs.

40. Ottawa Board of Education. (1995). *Budget Review Framework.*

The purpose of this document was to present a trial budget review framework based on the three entry points in French immersion currently provided by the OBE. The objective was to test this framework as a model for future decision making. In the process, major aspects of French Immersion in the OBE were reviewed, including a description of the three FI programs, their goals, the demand for the various options, and funding issues, as well as possible alternative options for program delivery.

The three FI programs currently offered by the OBE were designed "to help students achieve varying degrees of bilingualism" in order to work and live in a French or English environment. (p.1). *EFI* started in 1970 with 151 students in JK, SK, and grade1. *MFI* started in 1985, with 67 students in grade 4. *LFI*, with a grade 6 entry point, started in 1973, with 180 students in grades 6, 7, and 8. In 1993, the entry point was changed to grade 7, and enrolment in grade 7 was 111 students. Since the beginning of FI in the OBE, over 100 research documents have been prepared, and over 12 studies have been carried out on FI since 1984. The conclusion of those studies is that *EFI* is "the most effective entry [point] for native-like fluency" (p.2), but language outcomes for all three options are not only being met, but exceeded.

In looking at alternatives to the present system of delivery of FI options in the OBE, certain assumptions were made: 1) There is a demand for FI programs in the Ottawa area. 2) Legislative Grants to boards for FSL programs will continue. 3) School buildings and their upkeep would be required even if there were no FI options, since students now in FI would have to be educated in OBE schools. 4) Any reduction in the present level of resources would negatively affect FI program effectiveness and accessibility. 5) Research indicates that *EFI* is the most accessible entry point, as it attracts a broader cross-section of the population, while *MFI* and *LFI* tend to attract high achievers. However, *MFI* and *LFI* also offer opportunities for families who have moved to Ottawa or prefer that their children be educated in English first, especially in cases where it is not their first language. 6) Because school boundaries for immersion programs are usually larger than those set for the regular English program, students in FI are more likely to be transported.

The study looked at three change options for each of the FI programs: maintain the status quo, discontinue or rationalize the program, or combine with other Immersion programs, and came to a number of conclusions:

1) The FI options currently offered by the OBE are successful in achieving their goals, are strongly supported by parents and students, and families might choose to move to another Board if present programs were discontinued. 2) Reductions in the level of resources allocated to FI programs would result in reductions in the level of service. In terms of potential *savings* from discontinuation of current FI programs, 3) FI programs are cost effective and equivalent in cost to other programs of the OBE. Pupil-teacher ratios in FI classes are higher than in regular English classes, and overall class sizes are higher. 4) Students currently enroled in FI programs would have to be accommodated within other programs if the FI programs were discontinued. 5) The number of teachers required to teach regular English programs would be the same or higher. 6) Displaced FI teachers would be declared surplus unless qualified to teach in the regular program, and the Board would have to pay Sick Leave Gratuities and other severance benefits for those leaving the Board. 7) Transportation savings would depend on whether or not students went back to their home schools. In the case of 'repatriation' of students, some schools would be faced with a shortage of space, requiring portables, and other schools with drastically reduced enrolment might no longer be economically viable to operate.

41. Ottawa Board of Education. Enrolment Statistics: 1970-1996.

Detailed enrolment statistics for all Ottawa Board of Education French language programs are available from 1970, allowing, in the case of Immersion, for the tracking of enrolment trends in the three immersion options. These are summarized in a graph of proportion of students entering each program since 1970. The graph charts FI enrolment as a percentage of total student population. The appended statistics also allow comparison of eligible population (i.e. subracting special education and ESD enrolment).

From these data one can trace the ever-increasing enrolment in *EFI* through 1987 (over 45% of total SK enrolled) followed by a gradual leveling off to the present 34.6 % of the total SK population and 28% overall from SK to grade 6. *MFI*, begun in 1985, currently attracts approximately 6% of students entering grade 4. *LFI* attracted approximately 7% of students entering grade 6 at the time the entry point was changed in 1992, and since that time it has attracted approximately 6% of students entering grade 7. When only those students eligible for regular English and FI are considered, the entry level FI percentages are much higher: 53% *EFI*, 8.5% *MFI* and 9.1% *LFI* (fall, 1996).

It is apparent from these data that *EFI* attracts a much larger proportion of the school population than the other FI options.

42. Ottawa Roman Catholic Separate School Board. *Report on Community Consultations re: proposed Middle Entry French Immersion program.* (1995). May 24 memorandum to the Superintendent of Education. Ottawa, ON: Ottawa Roman Catholic Separate School Board. 6 pp. and Appendices (c.150 pp.).

The 6-page memorandum summarizes appended reports from consultation meetings at ORCSSB schools, and advisory committee and individual submissions, in response to a Board motion (April 10,1995, #181-95) to consider possible implementation of a 50/50 middle immersion program in grades 4-6.

Findings: Parents at community meetings overwhelmingly favoured the existing model of immersion delivery (universal 50/50 early immersion from Kindergarten/grade1), citing concerns in three main areas: bilingualism objectives, finances, and program integrity. Points regarding bilingualism included the likely greater loss of students from an *MFI* program after grade 6, the impossibility of achieving similar levels of bilingualism with a later start, and the loss of a sense of French community and culture throughout Board programs. Financial concerns included potential loss of an assessment tax base if parents moved to other Boards for *EFI*, the high cost of replacing material and resources, and a need in any case for alternative programs for ESL and other students who cannot participate in FI (see ORCSSB, 1993, **#35**), thus minimizing savings. Program integrity concerns involved issues such as potential

changes to class size and make-up, and difficulties for anglophone parents attempting to help children with subject matter taught in French at higher grade levels.

Principals and teachers, while largely supporting the current program, showed greater readiness to consider changes. It was concluded that a more comprehensive consultation process should be undertaken if any changes were to be considered.

E. RECENT BIBLIOGRAPHIES OF IMMERSION AND BILINGUAL EDUCATION RESEARCH.

43. Endt, E. (1992). *Immersion und Bilingualer Unterricht: Eine Bibliographie*. Eichstatt/Kiel: EKIB. 140 pp.

This bibliography came out of a large German research project, the Eichstatt-Kieler (EKIB) Project in Immersion and Bilingual Education. It is one of the few attempts to assemble a complete international bibliography of the essential research literature on immersion and bilingual education (since 1969), and is intended as a reference and guide for those interested in immersion theory and practice. References on immersion research in Africa, Asia, Latin America, Australia, the USA, and over 10 countries in Europe, are included. The largest section by far of this 140 - page volume is the third section (p. 26-100), which is completely devoted to the literature on immersion in Canada, and is thus a very useful reference.

44. Ontario Modern Language Teachers' Association. (1995). *The Benefits of Learning Languages: An Annotated Bibliography*. Toronto: Ontario Modern Language Teachers' Association (OMLTA). 10 pp.

This annotated bibliography includes over 20 studies (books and articles) from 1962-1996 that have indicated some benefit(s) of language learning. These various studies are organized under three main headings: 1) Cognitive/academic benefits of language learning, 2) career benefits, and 3) the link between the study of languages and the appreciation of diversity. Each section is introduced with a brief summary of relevant research findings, and then each individual study is described in a brief paragraph. A number of the studies cited involved comparisons between Immersion and Regular English Program students, as well as some comparisons between the various FI entry points. This is a useful reference not only for specialists, but for teachers, administrators, parents and other stakeholders in FSL programs in Canada.

45. Ouellet. M. (1990). *Synthèse historique de l'immersion française au Canada suivie d'une bibliographie selective et analytique.* Quebec, QB: Centre international de recherche sur l'amenagement linguistique (CIRB). 249 pp.

This document consists of three major sections. The first chapter is a historical overview of French immersion in Canada, and a current description of bilingual education in the United States and Europe.The second chapter is a 'selective and analytical' annotated bibliography that includes 363 resumés (and 46 supplementary titles) of research related to French immersion programs in Canada. These are divided into seventeen categories and cover the period from 1968 to 1988 . Finally, Chapter 3 includes a general critique of the bibliography as well as a discussion of the pros and cons of immersion education. While especially useful for specialized researchers in the field, the document provides a good summary of the main arguments for and against immersion education, and can thus serve as a useful reference for many purposes.

46. Parkin, M., Morrison, F., & Watkin, G. (1987). Annotated Bibliography in *French Immersion Research Relevant to Decisions in Ontario.* Toronto, ON: Ontario Ministry of Education: 79-157.

This document was reviewed in Section A (**#9**), but is included here to draw attention to the annotated bibliography on which the research overview was based, included as Appendix A. It contains clear, concise summaries of 162 research studies on French immersion carried out in Canada up to the end of 1985, including a few background studies. Titles were selected according to a number of criteria including recency, comprehensiveness, and availability, and are organized under six headings: 1) Attitudes and motivation 2) Achievement in English language arts and other subjects 3) French proficiency 4) Cultural knowledge and language use 5) Prediction of success and transfer procedures, and 6) Pedagogical and administrative issues.

47. Tardif, C. & Gauvin, F. (1995). *Répertoire de la recherche universitaire en immersion au Canada.* Nepean, ON: Association canadienne des professeurs d'immersion/Canadian Association of Immersion Teachers. 179 pp.

This is a collection of abstracts of research studies and writings on French immersion in Canada carried out at Canadian universities between 1988 and 1994. While not an exhaustive collection, it contains 134 annotated references (89 theses and 45 research projects), all of which are cross-referenced according to seventeen themes or topics such as 'pedagogical approach' and 'program/school'. The latter includes comparisons between various FI options. The authors include a detailed description of the methodology used in developing the *Répertoire*, as well as an overall summary of the research included in the bibliography.This is a valuable resource in that it presents annotated references to valuable research that is often not widely known or easily accessible.

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(Including works cited or consulted)

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APPENDIX A

Carleton Board of Education: French Immersion
Enrolment Trends: 1978-1994

CBE ENROLMENT STATISTICS (SK-8)

ENGLISH PROGRAM, EFI AND LFI ENROLMENTS 1978-1994, AS PERCENTAGES OF TOTAL ELEMENTARY POPULATIONS

PROGRAM	YEAR									
	1978		1982		1987		1990		1994	
	ENROLMENT	%	ENROLMENT	%	ENROLMENT	%	ENROLMENT	%	ENROLMENT	%
ENG./REG. PROG. GRADES SK – 8	15,897	70%	14,722	68%	12,586	56.5%	13,480	54%	15,156	55.5%
EFI GRADES SK – 8	6,504	28%	5,980	28%	8,560	38.5%	10,303	41.5%	11,347	41.5%
LFI GRADES 7 – 8	430	2%	783	3.5%	1,155	5%	1,109	4.5%	879	3%
TOTAL ELEMENTARY (EXCLUDING SPEC. ED)	22,831	100%	21,485	100%	22,332	100%	24,892	100%	27,382	100%

CBE ENROLMENT STATISTICS (EXCLUDING SPEC. ED.)

ENGLISH PROGRAM, EFI AND LFI ENROLMENTS IN SK, GRADES 3, 6, AND 8 AS PERCENTAGES OF TOTAL ENROLMENTS AT THAT GRADE LEVEL

BY GRADE/PROGRAM

GRADE	PROGRAM	YEAR							
		1982		1987		1990		1994	
		ENROLMENT	%	ENROLMENT	%	ENROLMENT	%	ENROLMENT	%
SK	ENG./REG.	1,112	55%	1,039	43%	1,417	48%	1,596	50%
	EFI	906	45%	1,385	57%	1,511	52%	1,582	50%
	TOTAL	2,018	100%	2,424	100%	2,928	100%	3,178	100%
GR. 3	ENG./REG.	1,609	70%	1,533	63%	1,455	54%	1,789	58%
	EFI	700	30%	889	37%	1,252	46%	1,284	42%
	TOTAL	2,309	100%	2,422	100%	2,707	100%	3,073	100%
GR. 6	ENG./REG.	2,009	79%	1,725	71%	1,750	65%	1,825	61.5%
	EFI	539	21%	712	29%	950	35%	1,138	38.5%
	TOTAL	2,548	100%	2,437	100%	2,700	100%	2,963	100%
GR. 8	ENG./REG.	1,894	72%	1,455	57%	1,285	49%	1,407	49.5%
	EFI	395	15%	588	23%	765	29%	991	35%
	LFI	336	13%	509	20%	562	22%	448	15.5%
	TOTAL	2,625	100%	2,552	100%	2,612	100%	2,846	100%

APPENDIX B

Ottawa Board of Education: French Immersion
Enrolment Trends: 1970-1996

OBE FI ENROLMENT STATISTICS, 1996

ELEMENTARY FRENCH IMMERSION PROGRAMME SUMMARY
SEPTEMBER 10, 1996

EARLY FRENCH IMMERSION

SCHOOL	PROG	JK	SK	1	2	3	4	5	6	7	8	SEPT. 10/96 TOTAL	SEPT. 30/95 TOTAL	SEPT. - SEPT. DIFF.	SEPT. - SEPT. %
AGINCOURT	EFI	0	78	57	51	37	38	36	29	0	0	326	338	-12	-3.6
WOODROFFE	EFI	50	82	73	48	53	45	39	39	0	0	429	449	-20	-4.5
J.H. PUTMAN	EFI	0	0	0	0	0	0	0	0	60	69	129	139	-10	-7.2
SUB-TOTAL	EFI	50	160	130	99	90	83	75	68	60	69	884	926	-42	-4.5
DEVONSHIRE	EFI	47	37	36	38	30	29	26	15	0	0	258	270	-12	-4.4
ELMDALE	EFI	31	60	46	25	34	40	39	38	0	0	313	316	-3	-0.9
FISHER PARK	EFI	0	0	0	0	0	0	0	0	71	57	128	104	24	23.1
SUB-TOTAL	EFI	78	97	82	63	64	69	65	53	71	57	699	690	9	1.3
BAYVIEW	EFI	0	44	47	50	51	48	0	0	0	0	240	236	4	1.7
FIELDING DRIVE	EFI	0	0	0	0	0	0	36	47	50	42	175	185	-10	-5.4
SUB-TOTAL	EFI	0	44	47	50	51	48	36	47	50	42	415	421	-6	-1.4
PLEASANT PARK	EFI	0	78	58	70	51	40	30	32	0	0	359	347	12	3.5
ROBERT BATEMAN	EFI	0	59	45	35	31	29	23	23	0	0	245	276	-31	-11.2
ALTA VISTA	EFI	0	28	27	24	27	17	18	19	37	29	226	404	-178	-44.1
ROBERTA BONDAR	EFI	0	33	34	28	31	25	24	21	44	24	264	0	264	N.A.
VINCENT MASSEY	EFI	0	20	14	14	12	11	43	23	47	40	224	232	-8	-3.4
SUB-TOTAL	EFI	0	218	178	171	152	122	138	118	128	93	1318	1259	59	4.7
ELGIN	EFI	9	25	22	12	14	16	15	4	0	0	117	129	-12	-9.3
FIRST AVENUE	EFI	44	43	51	42	38	44	62	62	0	0	386	371	15	4.0
HOPEWELL	EFI	0	21	32	38	25	29	28	31	95	104	403	490	-87	-17.8
SUB-TOTAL	EFI	53	89	105	92	77	89	105	97	95	104	906	990	-84	-8.5
MANOR PARK	EFI	0	63	33	30	26	22	16	25	0	0	215	209	6	2.9
ROCKCLIFFE PARK	EFI	53	69	39	37	42	42	32	24	0	0	338	368	-30	-8.2
QUEEN ELIZABETH	EFI	0	0	0	0	0	0	0	0	22	31	53	62	-9	-14.5
SUB-TOTAL	EFI	53	132	72	67	68	64	48	49	22	31	606	639	-33	-5.2
EFI TOTAL		234	740	614	542	502	475	467	432	426	396	4828	4925	-97	-2.0

MIDDLE FRENCH IMMERSION

SCHOOL	PROG	JK	SK	1	2	3	4	5	6	7	8	SEPT. 10/96 TOTAL	SEPT. 30/95 TOTAL	SEPT. - SEPT. DIFF.	SEPT. - SEPT. %
C. HEIGHTS / M. EASSON															
CARLETON HEIGHTS SITE	MFI	0	0	0	0	0	0	0	0	0	0	0	26	-26	-100.0
D.R. KENNEDY / WHITEHAVEN															
D.R. KENNEDY SITE	MFI	0	0	0	0	0	39	34	22	32	21	148	129	19	14.7
FEATHERSTON	MFI	0	0	0	0	0	37	27	28	26	22	140	129	11	8.5
QUEEN MARY / OVERBROOK															
OVERBROOK SITE	MFI	0	0	0	0	0	40	21	23	0	0	84	63	21	33.3
MFI TOTAL		0	0	0	0	0	116	82	73	58	43	372	347	25	7.2

LATE FRENCH IMMERSION

SCHOOL	PROG	JK	SK	1	2	3	4	5	6	7	8	SEPT. 10/96 TOTAL	SEPT. 30/95 TOTAL	SEPT. - SEPT. DIFF.	SEPT. - SEPT. %
ALTA VISTA	LFI	0	0	0	0	0	0	0	0	0	21	21	34	-13	-38.2
BROADVIEW	LFI	0	0	0	0	0	0	0	0	55	38	93	97	-4	-4.1
GLASHAN	LFI	0	0	0	0	0	0	0	0	54	56	109	89	20	22.5
LFI TOTAL		0	0	0	0	0	0	0	0	109	114	223	220	3	1.4

TOTAL FRENCH IMMERSION

		JK	SK	1	2	3	4	5	6	7	8	SEPT. 10/96 TOTAL	SEPT. 30/95 TOTAL	SEPT. - SEPT. DIFF.	SEPT. - SEPT. %
		234	740	614	542	502	591	549	505	593	553	5423	5492	-69	-1.3

OBE FI ENROLMENT STATISTICS, 1996

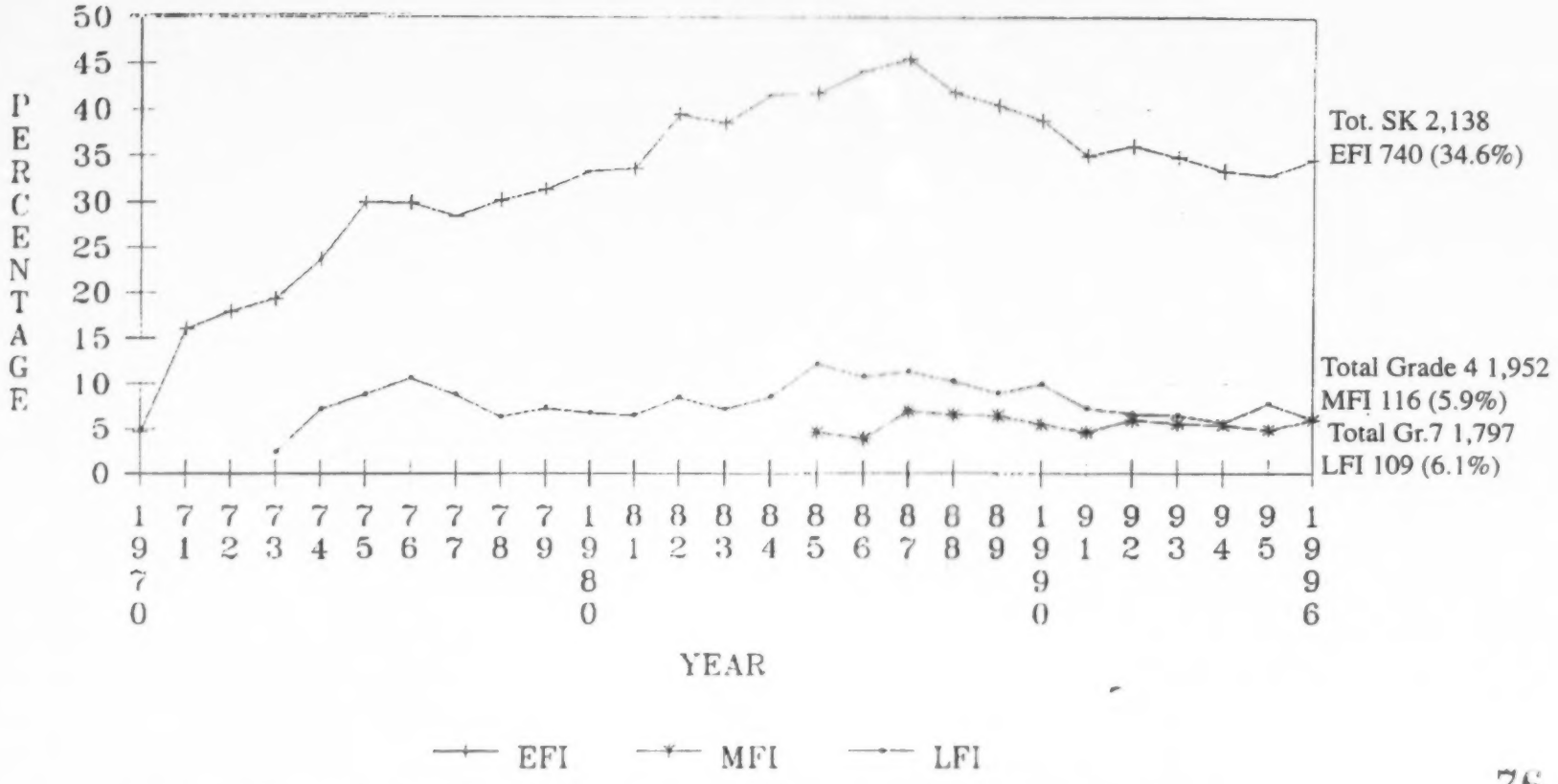
ELEMENTARY SCHOOL ENROLMENT REPORT SUMMARY

SEPTEMBER 10, 1996

PLANNING AREA	PROG	JK	SK	1	2	3	4	5	6	7	8	SPEC	ESD	SEPT. 10/96 TOTAL	SEPT. 30/95 TOTAL	SEPT. - SEPT. DIFF.	SEPT. %
WEST AREA	ENG	266	277	324	292	282	276	313	277	302	263	185	48	3084	3102	-18	-0.6
	FR IMM	50	160	130	99	90	122	109	90	147	128	0	0	1125	1152	-27	-2.3
	SUB-TOT	316	437	454	391	382	397	422	367	449	391	185	48	4209	4254	-45	-1.1
NEAR WEST AREA	ENG	125	153	160	195	167	165	163	165	114	113	95	35	1650	1557	93	6.0
	FR IMM	78	97	82	63	84	69	65	53	71	57	0	0	699	690	9	1.3
	SUB-TOT	203	250	242	258	231	234	228	218	185	170	95	35	2349	2247	102	4.5
CENTRAL AREA	ENG	176	184	191	189	179	177	189	170	211	214	197	47	2124	2103	21	1.0
	FR IMM	53	89	105	92	77	89	105	97	149	159	0	0	1015	1079	-64	-5.9
	SUB-TOT	229	273	296	281	256	266	294	267	360	373	197	47	3139	3182	-43	-1.4
NORTH EAST AREA	ENG	150	133	181	127	157	148	138	126	79	72	106	0	1417	1370	47	3.4
	FR IMM	53	132	72	67	68	104	89	72	22	31	0	0	690	702	-12	-1.7
	SUB-TOT	203	265	253	194	225	252	205	198	101	103	106	0	2107	2072	35	1.7
SOUTH EAST AREA	ENG	484	297	383	348	401	320	351	313	333	303	177	98	3788	3625	161	4.4
	FR IMM	0	218	178	171	152	159	165	148	154	136	0	0	1479	1422	57	4.0
	SUB-TOT	484	515	561	517	553	479	516	459	487	439	177	98	5265	5047	218	4.3
SOUTH AREA	ENG	122	118	158	141	121	104	131	131	140	151	94	20	1431	1520	-89	-5.9
	FR IMM	0	44	47	50	51	48	36	47	50	42	0	0	415	447	-32	-7.2
	SUB-TOT	122	162	205	191	172	152	167	178	190	193	94	20	1846	1967	-121	-6.2
ALTERNATIVE SCHOOLS	ALT	196	236	256	256	228	172	162	144	25	41	31	0	1747	1765	-18	-1.0
DEVELOPMENTALLY DISABLED PROGRAMME	DD	0	0	0	0	0	0	0	0	0	0	157	0	157	156	1	0.6
SYSTEM TOTALS:	ENG	1499	1398	1653	1546	1515	1381	1445	1328	1204	1157	887	248	15239	15042	197	1.3
	FR IMM	234	740	814	542	502	591	549	505	593	553	0	0	5423	5492	-69	-1.3
	DD	0	0	0	0	0	0	0	0	0	0	157	0	157	156	1	0.6
	TOTAL	1733	2138	2267	2088	2017	1952	1994	1831	1797	1710	1044	248	20819	20690	129	0.6

NOTE: THE 20819 ELEMENTARY STUDENTS REGISTERED AS OF SEPTEMBER 10, 1996 REPRESENT A FULL-TIME EQUIVALENT ENROLMENT (F.T.E.) OF 18993.5.
IT SHOULD BE NOTED THAT KINDERGARTEN STUDENTS ARE COUNTED AS .5 FOR F.T.E. PURPOSES.

OBE ENROLMENT STATISTICS, 1970-1996
PROPORTION OF STUDENTS ENTERING FRENCH IMMERSION*

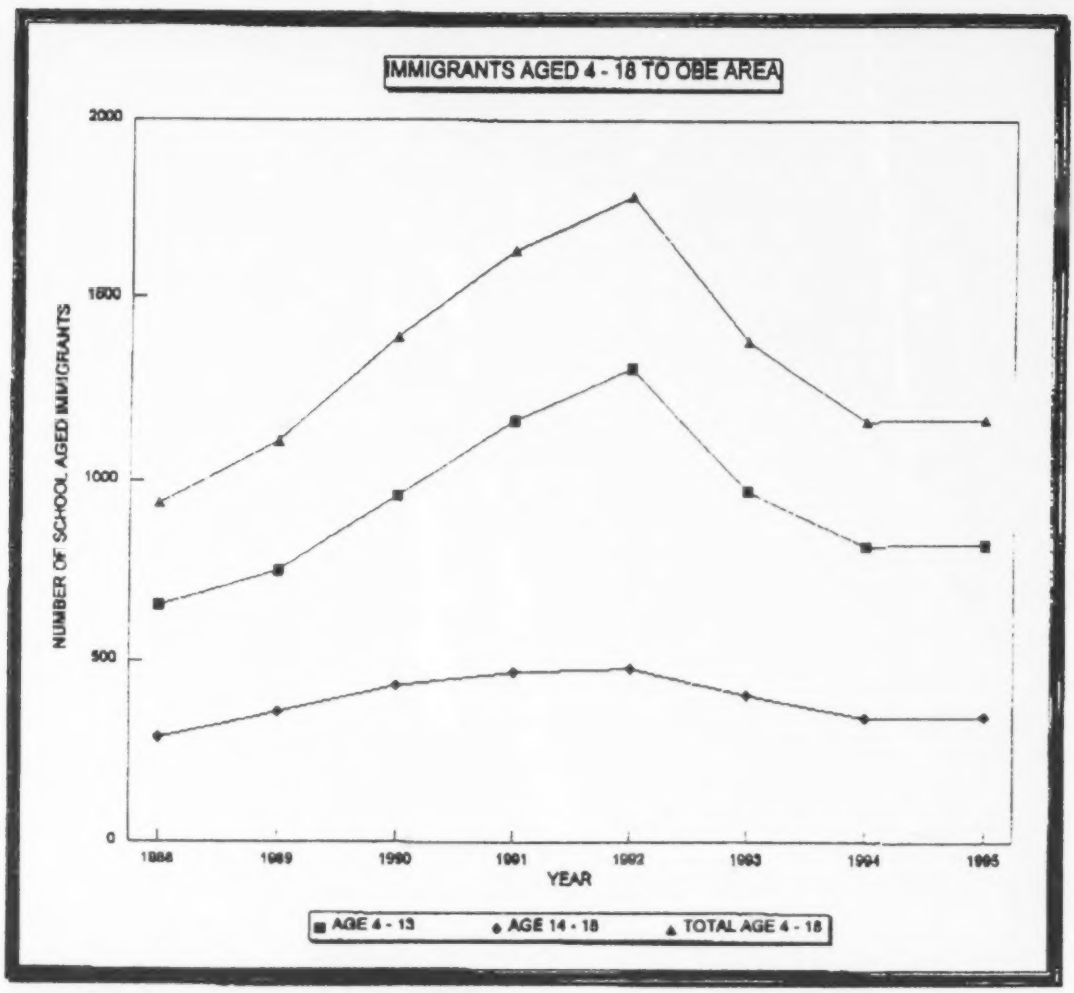


* *Total population figures include Special Education. ESD and ESL students.*

O.D.E. 1970–1996

SUMMARY OF SCHOOL AGED IMMIGRATION TO OBE AREA

YEAR	AGE 4 - 13	AGE 14 - 18	TOTAL AGE 4 - 18
1988	649	289	938
1989	749	361	1110
1990	969	433	1392
1991	1184	489	1633
1992	1307	480	1787
1993	972	408	1380
1994	818	345	1163
1995	821	348	1169



NOTE: 1995 FIGURES ARE PRELIMINARY AND SUBJECT TO REVISION
OBE PLANNING OFFICE
21-Oct-95

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